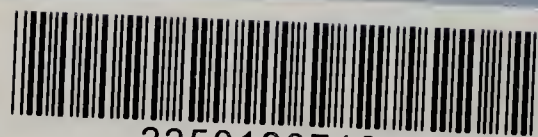


TRIENNIAL REPORT
ON
VACCINATION IN BURMA

FOR THE YEARS 1908-09 TO 1910-11



RANGOON
OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA
1911



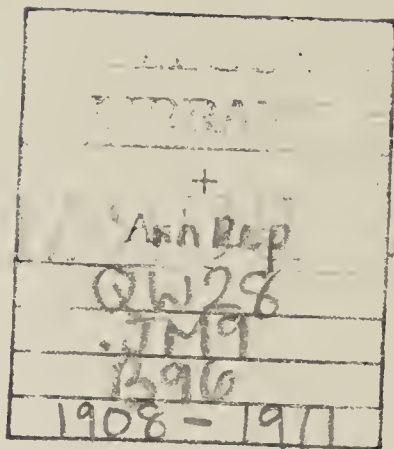
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RESOLUTION
ON THE
TRIENNIAL REPORT ON VACCINATION IN BURMA
FOR THE YEARS 1908-09 TO 1910-11.

Extract from the Proceedings of the Government of Burma in the General Department,—No. 1Z.-21, dated the 10th July 1911.

READ—

The Triennial Report on Vaccination in Burma for the years 1908-09—1910-11.

RESOLUTION.—The Lieutenant-Governor observes with much regret that there has been a serious falling off in the work of the Vaccination Department during the last three years. The outstanding fact is that the total number of vaccinations performed has decreased by 102,000, as compared with the figures for the previous triennium, while the total expenditure has increased by Rs. 1,43,000. These figures are so unsatisfactory that a more detailed analysis is desirable. The annual expenditure, which rose steadily from Rs. 1,00,000 in 1904-05 to Rs. 1,49,000 in 1908-09, increased in the next year to Rs. 1,80,000, and in 1910-11 to Rs. 1,93,000. In six years therefore, it has been almost doubled. The number of native superintendents has in that period been raised from 16 to 49, entailing an extra annual expenditure of Rs. 21,000, and the number of vaccinators from 233 to 268, at an additional cost of another Rs. 21,000. The total cost of establishment has risen from Rs. 71,000 to Rs. 1,22,000, a rise of 72 per cent. Travelling allowance has risen from Rs. 21,000 to Rs. 58,000, a rise of nearly 180 per cent., which is out of all proportion to the increased establishment. In the last two years the cost of travelling allowance has risen nearly 50 per cent., compared with the first year of the triennium.

2. If this increased expenditure were accompanied by improved results it would not be a matter for adverse criticism, but while in the year 1905-06 471,000 people were vaccinated, the number for the last three years has varied between 382,000 and 392,000. It is necessary to seek a reason for this very unsatisfactory state of affairs. The three classes of officers concerned in vaccination operations are the vaccinators, the native superintendents and the Civil Surgeons. The Sanitary Commissioner says that the vaccinators are usually young and inexperienced, and that the people have no confidence in them; and he mentions various cases in which vaccinators have been removed or dismissed, from which he deduces that the men as a class are not reliable. Sir Harvey Adamson is not disposed to accept this sweeping condemnation of vaccinators as a class. The number of permanent vaccinators who got into trouble in 1910-11 was a trifle over 5 per cent. of the total number employed. Considering that the men are mostly young and untried and that they are subjected to constant temptation by the offer of bribes, the percentage of men who succumbed and for

this or other reasons were removed from their appointments is not strikingly high. Still the fact remains that the work of the vaccinators has not been at all satisfactory. The average number of operations performed annually by each man fell from 1,721 in the previous triennium to 1,472. The pay of these men ranges from Rs. 20 to Rs. 30 a month, and the Sanitary Commissioner states that he is addressing Government on the subject of improving their prospects. The Lieutenant-Governor will be glad to consider any suggestions for the improved working of the Department; he considers, however, that the fault does not lie entirely with the vaccinators, but is very largely due to lack of trustworthy and efficient supervision. Their immediate supervising officers are the native superintendents, on pay varying from Rs. 25 to Rs. 60 a month, whose number has been trebled in the last six years. Sir Harvey Adamson is inclined to share the doubts of the Sanitary Commissioner as to whether this increase has been justified by results. The work of the vaccinators needs careful supervision, but it is doubtful whether native superintendents on this pay can be trusted to supervise them adequately.

The other supervising officers are the Civil Surgeons. It is admitted on all sides that these officers have not the time to superintend this part of their work effectively. A Civil Surgeon, who has a large hospital at headquarters and several smaller hospitals at outstations, who is Vice-President of a Municipality, Superintendent of a Jail, and Sanitary Officer for the whole district, and who has probably in addition a certain amount of practice among the Europeans in his station which he cannot leave for long to his subordinates, cannot possibly find the time to tour his district and to inspect the work of the vaccinators thoroughly. That this difficulty is increasing is shown by the fact that Civil Surgeons only inspected 11 per cent. of the total number of primary vaccinations during the triennium, as compared with 16 per cent. in the previous period. All Civil Surgeons, however, have not so many claims upon their time that they cannot tour more frequently than they now do, and the Lieutenant-Governor hopes to see an improvement in this respect in future years.

3. The Sanitary Commissioner considers that the remedy lies in relieving the Civil Surgeons of much of their work at headquarters by giving them capable Assistant Surgeons, and so allowing them more time for touring. He also recommends the appointment of additional Deputy Sanitary Commissioners, who would devote their whole time to touring and inspecting vaccination and sanitary works. The Lieutenant-Governor is prepared to consider proposals to this effect. At the same time His Honour thinks that more might be done under present conditions both by Civil Surgeons and by other district officials to further the objects of the Vaccination Department, and to overcome the distrust of vaccination which is at present so common among the Burmans. The Lieutenant-Governor wishes to impress most strongly on all district officials the necessity of doing all in their power in this direction; much good might result if civil officers would occasionally take vaccinators on tour with them, would make a point of inspecting the Headmen's Vaccination Registers, and would endeavour to enlist the assistance of headmen and elders of villages by explaining to them clearly the advantages of vaccination over inoculation.

The necessity for such action was impressed on officers in the Resolution on the last triennial report. His Honour regrets to see that it has had so little effect and trusts that no effort will be spared in future.


4. Two important Acts dealing with Vaccination were passed during the period under review; the Burma Prohibition of Inoculation and Licensing of Vaccinators Act, 1908, prohibits inoculation in any areas to which it may be extended; it has, however, only been extended to the Hanthawaddy and Pegu Districts as yet. The question of its further extension is now engaging the Lieutenant-Governor's attention. The Burma Vaccination Law Amendment Act, 1909, gives power to Health Officers to enforce vaccination in certain circumstances in Rangoon and any other Municipality to which it may be extended, and also provides for the vaccination of immigrant coolies at Rangoon. Lack of funds unfortunately prevented the latter provision from being enforced up to the close of the period under review. It is too early yet to say what the effect of these two Acts has been.

5. The Lieutenant-Governor is glad to note that Captain Dougan has kept the Vaccine Depôt at Meiktila in the same state of efficiency as when Major Entrican had charge of it; the success of this depôt is the most satisfactory feature of an otherwise discouraging report.

By order of the Lieutenant-Governor of Burma,

G. B. H. FELL,

Offg. Secretary to the Government of Burma.



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TRIENNIAL REPORT

ON

VACCINATION IN BURMA

For the years 1908-1909 to 1910-1911.

1. The figures in this report (especially in Statement I) are calculated on the 1911 Census, and this fact must be taken into consideration in comparing the averages of the three years of the triennium which involve comparison of the work accomplished with the Census population.

2. *Administration.*—Major C. E. Williams, M.D., D.P.H., I.M.S., held charge of the Vaccination Department during the whole triennial period except for the few months dating from May 19th, 1910, during which time the office was held by me. The duties of Deputy Sanitary Commissioner were performed by Major N. P. O'Gorman Lalor, M.B., D.P.H.; I.M.S., from April 1910 to the end of the triennial period. Previous to April 1910 the charge was vacant.

3. *Area under Vaccination.*—The area under vaccination remained unaltered during the period under report. In two districts, Hanthawaddy and Pegu, the prohibition of inoculation was enforced from the 15th October 1909.

4. *Strength of the Vaccination Establishment.*—The strength of the Vaccination Establishment during the triennial period is shown in Table A. It will be seen that there is an increase of 17 Native Superintendents and 18 Vaccinators on the average of the preceding triennium. The Vaccinators increased to the number of 15 in the present triennium over the year 1907-08 and

TABLE A.

| Year. | District Superintendents. | Native Superintendents. | Vaccinators. |
|----------------------------------|---------------------------|-------------------------|--------------|
| Triennium— 1905-06 to 1907-08 | 41 | 31 | 245 |
| 1908-09 ... | 41 | 48 | 259 |
| 1909-10 ... | 41 | 48 | 266 |
| 1910-11 ... | 41 | 49 | 268 |
| Average ... | 41 | 48 | 264 |

were distributed to the following districts:—Pakôkku 4, Toungoo 2, Hanthawaddy 3, Pegu 2, Rangoon 1, Katha 2, and Meiktila 1.

5. *Average Work of each Vaccinator.*—The average number of operations performed by each vaccinator was 1,466 in 1910-11 compared with 1,475 in 1909-10 and 1,476 in 1908-09. For the triennial period the average number was 1,472 as compared with 1,721 or a decrease of 249.

During the year 1910-11 Rangoon shows the highest return; the average number of cases performed by each Vaccinator was 7,798. Amherst follows with a credit of 3,636 and then Sagaing with an average of 2,307. The smallest average number of vaccinations was performed at Pyapôn 521, followed by Myitkyina 535, Hill Tracts, Northern Arakan 563, Ruby Mines 677, Northern Shan States 718, Upper Chindwin 827, and Toungoo 857.

At Pyapôn this average works out at 47.36 operations a month which is a small amount of work however difficult the country may be to traverse.

6. Expenditure on vaccination amounted to Rs. 1,93,279 in 1910-11 as compared with Rs. 1,80,784 in 1909-10 and Rs. 1,49,847 in 1908-09. The triennial expenditure is Rs. 5,23,910 as compared with Rs. 3,80,597 in the previous triennium and Rs. 2,80,309 in the three seasons 1902-03 to 1904-05. The enhanced expenditure during the present triennium is due to (a) increase in the number of the Native Superintendents of Vaccination and Vaccinators, (b) the employment of a larger number of peons in areas in which postal arrangements were defective and (c) the increased pay of vaccinators dependent on increment due to increased length of service. Out of a total expenditure during 1910-11 of Rs. 1,93,279, a sum of Rs. 1,22,875 was spent on establishment, Rs. 58,940 on travelling allowance, Rs. 11,464 on contingencies, and Rs. 17,810 on the Meiktila Lymph Dépôt (which expenditure includes pay of apprentice vaccinators under training at the Dépôt). The expenses of the Dépôt, amounted to a sum of Rs. 13,900-15-10 in 1909-10 and in 1908-09 to Rs. 9,783-13-6. The increase in the total expenditure in 1910-11 as compared with that in 1909-10 was due to the

return of the Deputy Sanitary Commissioner from two years' furlough (his post having remained vacant during the interval), and the consequent increase of expenditure under the head "Travelling Allowance" which was also augmented by the employment of 22 peons in the current year in place of 12 as in the preceding year, and the increase in the number of apprentice vaccinators sent to Meiktila for training.

Statement
II.

7. The percentage of the total cost borne by

TABLE B.

| Years. | Government. | Municipalities. | Local Funds. | Native States. |
|------------------------|-------------|-----------------|--------------|----------------|
| 1902-03 to 1904-05 .. | 34.17 | 17.96 | 44.69 | 3.18 |
| 1905-06 to 1907-08 ... | 39.92 | 15.81 | 41.81 | 2.46 |
| 1908-09 to 1910-11 ... | 41.92 | 12.55 | 39.93 | 2.60 |

Government and other bodies during the triennium under review as compared with the previous triennium is shown in the attached Table B. The increase of cost borne by the Provincial Funds from 39.92 in the previous triennium to

44.92 in the present is due to the increase of the supervising staff as well as to the cost of lymph preparation at Meiktila.

Statement
II.

8. *Average Cost of each successful Case of Vaccination.*—On a reference to

TABLE C.

| Year. | Establishment. | Travelling allowance. | Contingencies. | Total. | Average cost per case. |
|-------------|----------------|-----------------------|----------------|----------|------------------------|
| | Rs. | Rs. | Rs. | Rs. | Rs. A. P. |
| 1908-09 ... | 1,01,447 | 39,705 | 8,695 | 1,49,847 | 0 7 5 |
| 1909-10 ... | 1,15,021 | 50,469 | 15,294 | 1,80,784 | 0 8 5 |
| 1910-11 ... | 1,22,875 | 53,940 | 11,465 | 1,93,230 | 0 9 1 |
| Total ... | 3,39,343 | 1,49,114 | 35,454 | 5,23,911 | 0 8 4 |

Table C it will be seen that the average cost of each successful case of vaccination has increased from 7 annas 5 pies in 1908-09 to 8 annas 5 pies in 1909-10 and 9 annas 1 pie in 1910-11. The average cost in the present triennium 8 annas 4 pies compares unfavourably with

5 annas 10 pies in the previous triennium especially when it is taken into consideration that notwithstanding the increase in the vaccination staff, 97,290 vaccinations were performed in the present triennium less than in the previous triennial period.

During the first year of the triennium the average cost per successful case varied from Rs. 2-12-4 in the Northern Shan States to 2 annas 3 pies in Sagaing.

During the second year the rates varied from Rs. 1-15-9 in the Northern Shan States to 3 annas 3 pies in the Sagaing District.

The highest expenditure in 1910-11 per case occurs in the Northern Shan States Rs. 1-11-4, but the absence of good roads, the immense distances to be covered, and the deficient postal arrangement are sufficient to explain this large average expenditure. This figure is closely followed by Rs. 1-10-10 in the Ruby Mines District and Rs. 1-4-4 in the Pyapôn District. The lowest cost per case was in the Ahmerst District 3 annas 5 pies.

Statement
I.

9. *Total number of persons Vaccinated by all Establishments.*—The total number of persons vaccinated during the period under report is 1,167,673 or a decrease of 102,280 below the previous triennium, and an increase of 1,088 over the 1902-03 to 1904-05 triennium. During the last three seasons the year 1908-09 shows the lowest figures. The numbers have subsequently steadily increased notwithstanding the fact that the 1910-11 season was the first year in which one month's cessation of work was permitted.

| | | | | |
|---------|-----|-----|-----|---------|
| 1908-09 | ... | ... | ... | 382,326 |
| 1909-10 | ... | ... | ... | 392,471 |
| 1910-11 | ... | ... | ... | 392,877 |

Statement
I.

10. *Primary Vaccination.*—The total number of primary vaccinations was 347,513 in the present year as compared with 348,141 in 1909-10 and 335,415 in 1908-09. The number and the percentage of successful primary cases in which the results were known in the period under report was 937,695 and 94.80 per cent. as compared with 976,586 and 91.05 per cent. in the previous triennial period. In 1910-11 the percentage of successes in which the results were known was 95.50 as compared with 95.27 in 1909-10 and 93.58 in 1908-09.

Statement
I.

11. *Re-vaccination.*—In the 1910-11 season 47,380 operations with a percentage of successes 67.81 per cent. were performed, as compared with 47,303 and 61.58 per cent. and 46,911 and 59.30 in the two previous seasons respectively. The total number and percentage of successful cases in the period under report was 68,834 and 62.71 per cent. as compared with 65,678 and 54.74 in the previous triennium.

12. *Vaccination in proportion to Births and according to Age.*—Out of a total

TABLE D.
Infantile protection during the triennium in the districts of Lower and Upper Burma where registration of Vital Statistics is enforced.

| Province. | Year. | Registered births during the calendar year. | Registered deaths under one year during the calendar year. | Number of children available for vaccination. | Infants successfully vaccinated during the year ending the 31st March. | Percentage of available infants protected. |
|-----------------|-------|---|--|---|--|--|
| Lower Burma ... | 1908 | 189,667 | 33,233 | 151,434 | 40,375 | 26·66 |
| | 1909 | 190,179 | 42,089 | 154,090 | 39,619 | 25·71 |
| | 1910 | 197,240 | 43,241 | 153,999 | 37,441 | 24·31 |
| Total ... | | 583,086 | 123,563 | 459,523 | 117,435 | 25·56 |
| Upper Burma ... | 1908 | 105,960 | 27,541 | 82,419 | 41,517 | 50·37 |
| | 1909 | 110,628 | 26,235 | 84,393 | 41,547 | 49·23 |
| | 1910 | 110,701 | 28,582 | 82,119 | 39,667 | 48·30 |
| Total ... | | 327,289 | 78,358 | 248,931 | 122,731 | 49·30 |

of 459,523 children available in Lower Burma, 117,435 were successfully vaccinated, or a protection of 25·56 per cent. as compared with 26·27 per cent. in the previous triennium.

The percentage of protected infants appears to have steadily decreased from 26·66 in 1908 to 25·71 in 1909 and 24·31 in 1910.

In Upper Burma a comparison with a previous triennium is impossible as registration of births was only introduced in 1907. The registration of births is confined to certain districts and it is in those districts only that results of vaccination are taken for comparison. Out of a total of 248,931 children available for vaccination 122,731 were vaccinated. The percentage of 49·30 of available infants is much in excess of the Lower Burma average, but shows the same diminution throughout the years of the triennium (as will be seen from the attached table) as is experienced in Lower Burma. The total number of successful operations performed on children between the ages of 1 and 6 in the whole Province was 486,298 or a decrease of 47,830 over the previous triennium. Vaccination between these ages shows 51·86 per cent. successful in the Province, 51·10 per cent. in Lower Burma and 52·73 per cent. in Upper Burma.

13. *Protection of Population.*—The proportion per mille of the population successfully vaccinated in 1910-11 was 28·26 as compared with 32·66 and 30·89 in 1909-10 and 1908-09, respectively. It must be remembered however that the 1910 figures are based on the 1911 Census, and that if the proportion had been calculated on the 1901 Census, the protection per mille in 1910-11 would have been 32·52. During the present triennial period the protection per mille was 30·49 as compared with 33·16 in the previous triennium. The average ratios per 1,000 of the population protected by vaccination during the quinquennial period preceding each of the three years under review is 32·25. From Appendix A it will be seen that the ratio of protection per 10,000 in the quinquennium preceding the year 1910-11 is lower than the previous quinquennial ratio, that is to say, with a mean ratio of 329·99 successfully vaccinated per 10,000, the small-pox mortality was 5·98 as compared with the previous quinquennium in which with a ratio of 372·41 successfully vaccinated per 10,000, the small-pox mortality was 3·62.

Amherst heads the list of districts showing the greatest number of persons successfully vaccinated per 1,000 of population, with 79·71 in 1910-11 as compared with 68·83 in 1909-10 and 63·43 in 1908-09. In Amherst the average annual number successfully vaccinated and the average annual death-rate from small-pox during the previous five years were 67·95 and ·39, respectively. Amherst is followed by the Arakan Hill Tracts with 47·51, Rangoon with 46·28 and Mergui with 43·46, successfully vaccinated per 1,000 of population. The lowest protection per 1,000 is met with in the Northern Shan States 8·79, followed by Pyapôn 10·84, Myitkyina 12·33, Salween 14·92, Chin Hills 15·52, Akyab 15·92 and Hanthawaddy 16·96. In Rangoon the protection per 1,000 for the previous five years is 62·68 and the small-pox mortality 1·56. In Hanthawaddy the protection for the same period is 9·49 and the small-pox mortality 1·08. Tavoy with 29·74 persons successfully vaccinated per 1,000 in 1910-11 against 56·09 in 1909-10 and 62·61 in 1908-09 shows a large decrease. The population of Tavoy has increased by 24,658 over the 1901 Census. Had the calculation been made on the previous Census the protection per mille would have been 36·41 in place of 29·74; but even this shows a large decrease in protection from previous years. The average number of persons vaccinated successfully and the average annual death-rate from small-pox per 1,000 of population in Tavoy during the previous five years were 60·70 and ·04, respectively.

14. *Mortality from Small-pox.*—The death-rate from small-pox in 1910 was ·21 against ·12 in 1909 and ·15 in 1908. The quinquennial average is ·47. A

Statement I
and
Appendix A

Appendix C.

diagram showing the relation between the death-rate from small-pox and the proportion of the population protected by vaccination in each district is attached.

Statement I.

15. *Vaccination in Districts.*—In 1910-11, out of 40 districts 21 show a decrease in vaccination over the returns of 1909-10 in which Pakôkku heads the list with a diminution of 7,408, followed by Mandalay (6,042), Sagaing (4,965), Thayetmyo (3,975), and Tavoy (3,340):

The decrease in the amount of vaccination performed in 1910-11 is accounted for, in Akyab, Kyaukpyu, Magwe, Tavoy, Mergui, Mandalay, Myingyan, Ruby Mines, and Upper Chindwin Districts and Bhamo Town by the absence of several vaccinators at Meiktila for training; at Sagaing by a rebellion at Myinmu, and by high infantile mortality; in Lower Chindwin by the apathy of vaccinators, the prevalence of plague and the consequent evacuation of villages; in Pakôkku by a wide-spread epidemic of measles; at Thayetmyo by the deputation of vaccinators to Meiktila for training, the prevalence of malaria and the illness of two vaccinators; in Chin Hills by the Assistant Superintendents being engaged for months on Census work; and at Loimwe by illness of both vaccinators.

Nineteen districts showed an increase headed by Amherst (10,246) and followed by the Southern Shan States (4,888): Hanthawaddy shows an increase of 2,658 and Rangoon 2,010. At Henzada in which there is an increase of 1,478 the Civil Surgeon again reports that vaccination receives little support from the District Staff.

On comparison of the work done in the triennium under report with the previous three years 1905-06 to 1907-08, the districts showing the largest decreases are Henzada by 44,624; Rangoon by 24,765; and Akyab by 15,055, followed by Upper Chindwin by 10,956; Thayetmyo by 10,599; Pegu by 8,249; Prome by 7,603; Lower Chindwin by 6,951; Sagaing by 6,374; Meiktila by 8,308; Bassein by 7,680; Pyapôn by 2,909, Tharrawaddy by 2,322; Myingyan by 2,957; Yamèthin by 2,667 and Kyauksè by 1,913.

The only districts showing a decided increase are:—Southern Shan States by 20,883; Pakôkku by 16,837; Katha by 8,701, Kyaukpyu by 4,616; Thatôn by 3,613; Myaungmya by 3,167; Hanthawaddy by 2,239 and Amherst by 2,770.

The following districts during the three triennial periods show, respectively, a steady rise in the number vaccinated:—Northern Arakan Hill Tracts, Sando-way, Hanthawaddy, Amherst, Thatôn, Katha, Ruby Mines, Pakôkku, Magwe, Southern Shan States and Chin Hills.

Districts showing a steady fall are:—Pegu, Prome, Tavoy, Toungoo, Upper Chindwin, Thayetmyo, Meiktila, Yamèthin, Kyauksè, and Henzada. The latter district shows the most marked decrease from 120,507 in the triennium 1902-03 to 1904-05 to 91,151 in the next period and to 46,527 in the period under report. In paragraph 9 of the Triennial Report for 1905-06 to 1907-08, Major Williams drew attention to the remarkable and continued decrease in the number of vaccinations in the Henzada District, and stated that the Civil Surgeon, Doctor McCarthy, had explained that the decline was due to the records in the past having been quite unreliable, that the results reported by Vaccinators were not inspected or checked in any way, and that the number of operations performed was grossly exaggerated. A similar state of affairs existed in other districts of the Province, and these facts must be borne in mind when judging the decrease in triennial periods.

Statement IV.

16. *Vaccination in Municipalities.*—The total number of successes from vaccination in the Municipalities of Burma during 1910-11 was 32,308 against 44,057 in 1909-10 and 38,908 in 1908-09. The percentage of success to the number vaccinated was 96.13 in primary cases and 58.35 in re-vaccination. Cent. per cent. successes in primary cases are recorded at Kyaukpyu, Prome, Ma-ubin, Yandoon, Ngathainggyaung, Mônywa, Taungdwingyi, and Myingyan; and the lowest percentage of success is returned from Pyinmana. In re-vaccination Henzada and Taungdwingyi stand highest with 100 per cent. successes, and Yandoon lowest with 15.38 per cent.

Appendix B.

The number of children under one year of age available for vaccination in the Municipalities of Burma and the number of successful operations performed on them are shown in Appendix B. A very satisfactory grade of protection is afforded in about 24 towns, out of a total of 47 in which the Act is in force; in Prome, Paungdè, Kyaukpyu and Nyaunglebin, Bhamo less than half the number of available children have been vaccinated. An excess over the number available for vaccination is seen in Rangoon, Gyobingauk, Moulmein, Tavoy, Mergui, Toungoo, Ma-ubin, Kyaiklat, Bassein, Shwegyin, Thayetmyo, Myingyan,

Pakôkku, Kyauksè, Minbu, Salin, and Meiktila, but is most marked in Yamèthin in which 268 children were vaccinated and 57 were available for vaccination. This large discrepancy needs further inquiry. The excess in the other towns can be accounted for by children of immigrants and children born in rural areas being brought into the town for vaccination, and also by the fact that deaths of children which are recorded from the annual return may have taken place after vaccination leading to a reduction in the total of cases available for vaccination.

17. *Dispensary Vaccination*.—The number of operations performed by Medical Subordinates at Dispensaries during 1910-11 was 18,133—8,268 primary and 9,865 re-vaccinations as compared with 12,261 in 1909-10 and 14,087 in 1908-09, showing a considerable increase during the past year. The total number of operations performed during the period under review was 44,481 as compared with 55,159 in the previous triennium. The percentage of verified primary vaccination successes was 95.03 as compared with 91.93 and 81.21, respectively, of the figures obtained in the two previous triennial periods. At the Dispensaries of Bogale and Dedayè no dispensary vaccination appears to be carried out. Vaccination was also not performed in any of the Dispensaries in the Akyab, Prome, Pyapôn, Tavoy, Thatôn, Sagaing, Minbu, Kyauksè, and Myingyan Districts.

Statement
III.

18. *Cantonment Vaccination*.—Total number of operations reported from the Cantonments of Rangoon and Mandalay is 4,566—primary 1,990, re-vaccination 2,576 with a successful percentage of 96.03 primary and 64.48 re-vaccination.

19. Under the heading "Government" the total number of vaccination and the number of verified successes were 467,961 and 444,605 showing a considerable increase as compared with 436,647 and 383,586 in the previous triennium. During the triennium under review the year 1909-10 returned the highest figures. Under the heading "Local Funds", the season 1909-10 shows a decrease over 1908-09 followed by a considerable increase in the 1910-11 season. The Native States show a gradual increase throughout the seasons of the triennium.

Statement
IV.

20. *Vaccination Act*.—During the triennium under report the Vaccination Act has been extended to the towns of Nyaunglebin and Danubyu.

In 1908 an Act was passed to provide for the prohibition of inoculation and the licensing of vaccinators in Burma. The provisions of this Act provide for the punishment of inoculators by imprisonment which may extend to three months or by a fine of Rs. 200 or both. The Civil Surgeons may license private vaccinators to practise vaccination in a local area and may suspend or cancel such license; the punishments prescribed for vaccination without license or vaccination outside the licensed area extend up to Rs. 50 or one month's imprisonment or both.

In 1909 the Burma Vaccination Law Amendment Act was passed, giving powers (a) to direct vaccination of young children exposed to infection, (b) to require any unprotected persons to submit to vaccination within seven days, (c) to vaccinate occupants of houses, let-in lodgings, or unprotected persons in a factory forthwith, (d) to require all labourers on landing at Rangoon or any port to which the Local Government by notification may extend the section to proceed to a place of inspection, and if unprotected to submit themselves to vaccination, (e) to the Health Officer, Superintendent of Vaccination, and other officers authorized in this behalf to arrest persons failing to submit to vaccination under sections 7 and 9 of the Act, and (f) to punish for neglect to answer questions and to show the marks of alleged vaccination

21. *Verification*:—

TABLE E.

Statement
V.

| Triennium ending | Civil Surgeon, Primary. | Re-vaccination. |
|------------------|-------------------------|-----------------|
| 1904-05 | 228,194 | 96,664 |
| 1907-08 | 183,260 | 61,119 |
| 1910-11 | 113,041 | 27,895 |

The actual figures for the last year of the previous triennial period and for the three years of present triennium were—

| Years. | Primary. | Re-vaccination. |
|---------|----------|-----------------|
| 1907-08 | 47,420 | 12,828 |
| 1908-09 | 38,589 | 11,311 |
| 1909-10 | 33,616 | 9,254 |
| 1910-11 | 27,836 | 7,330 |

During the present triennium verification by Civil Surgeons has been steadily decreasing but is most marked from the year 1908. This decrease (70,319) is perhaps unavoidable owing to an order issued by the Inspector-General of Civil Hospitals in 1908 that all duties relating to sanitation and vaccination of towns

should in future be performed by the Civil Surgeons only when inspection of Hospitals and Dispensaries in their districts is being carried out.

Evidently this circular is still in operation and has not been cancelled as it is quoted by a Civil Surgeon in his vaccination report for the present season as his reason for not carrying out more inspection work. The results of this circular are that preventive medicine is looked on as of minor consequence in a Civil Surgeon's work, and that the sanitation and water-supply of rural areas (except in the direct route from Dispensary to Dispensary) can receive little attention.

Civil Surgeons state that they cannot leave their Headquarters as—

(1) The country is rough and difficult to travel over, and more than ten days are required on tour for the accomplishment of any satisfactory inspection.

(2) Europeans at headquarters cannot be left in the medical charge of Sub-Assistant Surgeons for any length of time.

These objections are met with by the obvious answer—that if Assistant Surgeons are attached to Headquarters Hospitals the Superintendent of Vaccination might proceed on a prolonged tour with the knowledge that his patients are in good hands.

Until this measure is taken and as long as verification is left entirely in the hands of Native Superintendents of Vaccination, without supervision, the returns must be looked on with suspicion.

As regards primary cases the percentage of inspection by Civil Surgeons to the total number of vaccinations in 1910-11 was 10·69 as compared with 10·42 and 9·79 in 1909-10 and 1908-09, respectively. The small work done by the Civil Surgeons with headquarters at smaller towns can be appreciated by the following figures:—Toungoo 3 inspections in the year or ·05 per cent.; Kyauksè total inspections 156 or 3·59 per cent.; Prome 3·98 per cent.; Tharrawaddy 4·24 per cent.; Kyaukpyu 4·03 per cent.; and Ruby Mines *nil*. The highest percentages of inspection were performed at Shwebo 34·27; Tavoy 33·95; Thatôn 32·69 and Lower Chindwin 31·42.

Verification by Native Superintendents of Vaccination.

Statement
V.

Native Superintendents of Vaccination were appointed in 1906. The increase in their work is apparent in Statement V appended to the report.

During the present triennium there has been a steady increase in the number of inspections recorded by Native Superintendents of Vaccination.

The percentage of inspections to the total number vaccinated was in 1910-11 53·06 per cent., as regards primary vaccination and 45·45 per cent., as regards re-vaccination against 50·96 per cent. and 49·21 per cent. in 1909-10 and 40·84 per cent. and 39·75 per cent. in 1908-09. The average per cent. for the triennial period under report was primary vaccination 48·36 per cent. and re-vaccination 44·81 per cent.

22. *Vaccine Dépôts*.—There are now three vaccine dépôts in Burma at Meiktila, at Rangoon and at Loimwe.

The latter dépôt was opened during the past year, as owing to the situation

TABLE F.

| Years. | Calves. | Quantity of lymph in ounces. | Average yield per calf in grains. | Number of cases of lymph issued. |
|-------------|---------|------------------------------|-----------------------------------|----------------------------------|
| 1908-09 ... | 271 | 179·2 | 239·3 | 529,189 |
| 1909-10 ... | 300 | 196·4 | 286·4 | 14,644 |
| 1910-11 ... | 316 | 195·1 | 270·0 | 613,444 |

of Loimwe in the far interior of the Southern Shan States lymph from the Meiktila Dépôt took 25 to 30 days in delivery. At this new dépôt, one calf is vaccinated per month; and lanoline lymph is manufactured, which has yielded much better results than the lymph formerly used. The above table shows the number of calves used and the average yield of lymph at Meiktila during the triennium. The charge of the Dépôt has been in the hands of Captain Dougan and the excellent work done by that officer can be gathered from the following report. The quality of the lymph has been good, 254,116 cases of primary vaccination yielded 95·92 per cent. success as compared with 94·9 in 1909-10 and 91·2 in 1908-09. Re-vaccination numbered 21,798 cases and showed a percentage of 67·94 success. The introduction of lanoline lymph for use in districts situated at remote distances from the Dépôt has been attended with marked success. At Akyab, lanoline vaccine gave 94·2 per cent. success as compared with glycerine lymph

84.4 per cent. and Tavoy and Mergui recorded 94.2 per cent. success. It is found that Liebrich's lanoline in tins gives uniformly good results provided the lanoline in the centre of the tin is used. The outer layers show an acidity of 1 c. c. $\frac{N}{10}$ Na OH per gramme and are always rejected.

The present strain of vaccine has been maintained for five years and its strength has been reinforced by passage through 15 rabbits. Difficulty has been experienced in storing at a low temperature the glycerine lymph for ten days after manufacture. Cold store boxes and Thermos flasks have been tried but all have proved a failure. A small refrigerating plant is really required but the initial expense is more than can be afforded at present.

The Dépôt has unfortunately suffered severe loss in calves during the triennium from Hæmorrhagic Septicæmia and Rinderpest. Eighty-eight calves died in 1910-11 and 150 in 1909-10.

The experiments in sealing tubes with parafine and wax in place of by heat are progressing favourably.

At Rangoon 47 calves were vaccinated; 18,557 grains of scraping were obtained giving a higher average output than obtained at Meiktila of 391.72 grains per calf. The quality of the lymph has been satisfactory, producing 99.11 per cent. of successes in primary cases. The potency of the strain was not maintained by this Dépôt. Seed lymph was introduced from Bangalore and Meiktila.

23. *Training of Vaccination Staff.*—Three Native Superintendents and 116 District Vaccinators and 39 apprentice Vaccinators underwent training at Meiktila during the year 1910-11.

During the triennial period, 19 Native Superintendents of Vaccination, 116 District Vaccinators, and 87 apprentice Vaccinators were trained at Meiktila.

24. *Vaccination Instruments.*—Weir's metal combined scrapers and lancets forged entirely of solid steel and nickle plated are used for vaccination. In addition a vaccination haversack containing all the requisites for vaccine operations is being gradually supplied to all vaccinators.

25. *New Vaccination Form.*—To ensure the vaccination of all newly born children, a special combined birth and vaccination register has been introduced, Vaccination Form Sanitary - 8 Vac., in which the date when the child is liable to vaccination, the date of vaccination, the causes of non-vaccination from death, illness or removal from the town, etc., are entered.

26. *Inoculation.*—The Prohibition of Inoculation Act is only in force in the Hanthawaddy and Pegu Districts. That the extension of the Act is urgently required can be gathered from the fact that of the 20 districts reporting small-pox epidemics, 11 reported inoculation, and in 6 it was expressly stated that the epidemics were the direct result of inoculation. The explosion of a bomb in a village would not be followed by a more deadly result than is brought about by the visit of an inoculator. I hope the day is not far distant when this fact will be appreciated by Magistrates and a suitable punishment inflicted instead of fines from Rs. 5 to Rs. 50.

Inoculation is reported to have been carried out in the following districts:—Hanthawaddy, Ma-ubin, Pyapôn, Henzada, Myaungmya, Amherst, Toungoo, Thatôn, Yamèthin, Myingyan, and the Southern Shan States. In Hanthawaddy, Myaungmya, Pegu, Ma-ubin and Pyapôn, outbreaks of small-pox have been traced to the visits of inoculators. In Ma-ubin and Yamèthin inoculators were fined Rs. 20 and Rs. 15 each respectively.

In Myaungmya inoculation was detected in five villages and was the direct cause of 6 deaths. In Ma-ubin 82 deaths were traced to inoculation.

In Hanthawaddy an inoculator was prosecuted and ordered to pay a fine of Rs. 50 or to undergo, in default, 7 days' rigorous imprisonment.

27. *Attitude of People.*—In Hanthawaddy and Pegu inoculation is openly preferred to vaccination. In Magwe and Henzada vaccination is unpopular. In Tharrawaddy and Amherst several villages show a hostile attitude towards the vaccination operation. In Pyapôn, Myaungmya, and Salween vaccination is appreciated only by Karens. Chins in Minbu, Shans in Salween, and Shans, Talaings, Taungthus, and Karens in Thatôn object to the vaccination operation.

28. *General remarks on Vaccination in Burma.*—The small number of vaccinations performed in Burma by each vaccinator is largely due to the difficulty of touring; roads are poor or absent; the country intersected by streams and rivers, is practically impassable during the rainy season. Irrespective of this the

department is in its infancy. The vaccinators are mostly young, inexperienced men in whom the Burmese mothers have no trust. The men are not reliable. Fourteen permanent vaccinators and 3 temporary men have been dismissed, removed from the service, or their services dispensed with during the 1910-11 season for falsification, fraud, or acceptance of illegal gratification. Dr. Fink, Civil Surgeon, Myaungmya, has rendered admirable service to the Department by carefully investigating the work of the vaccinators in his district, leading to the dismissal of 4 permanent and 3 temporary vaccinators. The state of vaccination in Burma can be elicited from the following reports. Vaccinator Maung Po Shin is said to have been in league with inoculators with the result that children were inoculated and vaccinated at the same time. Scabs from small-pox pustules were said to have been mixed with the vaccine. The Civil Surgeon on examination found, between the upper and lower vaccination insertions, punctures due to inoculation. Lymph is also sold to inoculators to enable them to extort money by representing themselves as Government vaccinators and by excusing the people (on payment) from vaccination during the harvest season. At Shweoakchaung the headman reports that a Burman received Rs. 10 for excusing the inhabitants from vaccination. After receipt of the money he decamped leaving behind as a register of his work, a headman's vaccination register 10 years old from Thabyechaung.

In Madawgyaung village the parents performed inoculation on their children (happily unsuccessfully). They had no objection to vaccination but were too poor to pay the vaccinator the fees he demanded. The statement that the people are too poor to pay vaccinators is corroborated by Rev. Father Fargeton.

The appointment of private vaccinators who are entitled to receive fees, and the absence of a distinctive uniform for public vaccinators has left the people unable to recognize a Government vaccinator; this facilitates the acceptance of illegal gratification by vaccinators. Further, the system of appointing any person a Native Superintendent who has passed the necessary examination, and of not promoting an old and trustworthy vaccinator to the post has taken from the vaccinator all hope of promotion to a higher grade. It has left the country with a class of Native Superintendents of Vaccination who are young and inexperienced and in some cases unreliable, and who rise to a higher grade not by merit but at the expiration of every five years' service.

During the 1910-11 season it was found necessary to dismiss one Native Superintendent of Vaccination at Tharrawaddy and to suspend one Native Superintendent at Pegu. The work of Native Superintendents of Vaccination requires constant supervision. As has been previously pointed out Civil Surgeons are practically prohibited to do much inspection of vaccination. Under the present scheme one Native Superintendent must be provided for the inspection of every three vaccinators. This is a costly proceeding and the results in my opinion will not be commensurate with the expense entailed. In place of increasing the number of Native Superintendents of Vaccination it would be preferable from every point of view to increase the number of Deputy Sanitary Commissioners to be constantly on tours of inspection. At present one Deputy Sanitary Commissioner has been appointed for the whole of Burma which covers an area of 2,36,738 square miles. The inspection of an area of this size, when the difficulties of communication are taken into consideration, is an impossibility.

The Local Government is being addressed on the subject of improvement in the vaccinators' prospects and the re-grading of the Native Superintendents of Vaccination not only by length of service but also by merit. It is hoped that the Secretary of State for India will sanction the appointment of one or more additional Deputy Sanitary Commissioners.

S. A. HARRISS, M.B., D.P.H., *Major, I.M.S.*,

Offg. Superintendent-General of Vaccination, Burma.

RANGOON, 31st May 1911.

APPENDICES.

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A.—VACCINATION

STATEMENT NO. I.—*Showing particulars of Vaccination in the*

| No. | Districts. | Popula- tion of district according to census of 1911. | Average popula- tion per square mile. | Average number of vacci- nators employ- ed through- out the year. | Total number of persons vaccinated. | | | Average number of per- sons vacci- nated by each vacci- nator. | PRIMARY VACCINATION. | | | | |
|----------------------|-------------------------|--|---|---|--|---------|---------|--|----------------------|-----------------------|-----------------------------------|--------------------------|---------------|
| | | | | | | | | | Total. | Successful. | | | Un- known. |
| | | | | | | | | | | Under one year. | One and under six years. | Total of all ages. | |
| 1 | 2 | 3 | 4 | 5 | 6 | | | 7 | 8 | 9 | 10 | 11 | 12 |
| ARAKAN DIVISION. | | | | | | | | | | | | | |
| 1 | Akyab ... | 530,573 | 103 | 10 | 5,670 | 4,962 | 10,632 | 1,063 | *9,713 | 1,458 | 4,992 | 7,915 | 657 |
| 2 | Hill Tracts, Northern | | | | | | | | | | | | |
| | Arakan ... | 22,099 | 4 | 2 | 762 | 365 | 1,127 | 563 | 1,091 | 12 | 188 | 1,035 | 2 |
| 3 | Kyaukpau ... | 185,709 | 42 | 6 | 3,401 | 2,801 | 6,202 | 1,034 | 6,133 | 513 | 2,474 | 5,469 | 312 |
| 4 | Sandoway ... | 102,740 | 27 | 3 | 1,674 | 1,518 | 3,192 | 1,061 | 2,908 | 137 | 1,341 | 2,550 | 25 |
| | Total ... | 841,121 | 45 | 21 | 11,507 | 9,646 | 21,153 | 1,007 | 19,905 | 2,120 | 8,995 | 16,969 | 996 |
| PEGU DIVISION. | | | | | | | | | | | | | |
| 5 | Rangoon .. | 239,432 | 10,326 | 4 | 26,537 | 4,656 | 31,193 | 7,798 | *7,140 | 3,774 | 1,337 | 4,566 | 2,571 |
| 6 | Hanthawaddy | 479,615 | 159 | 9 | 4,375 | 4,622 | 8,997 | 1,000 | *7,922 | 1,006 | 5,390 | 7,451 | 135 |
| 7 | Pegu ... | 428,283 | 100 | 10 | 4,871 | 4,580 | 9,451 | 945 | 8,978 | 1,679 | 4,663 | 8,555 | 130 |
| 8 | Tharrawaddy | 433,366 | 152 | 8 | 8,523 | 8,567 | 17,090 | 2,136 | 16,925 | 3,591 | 10,608 | 15,987 | 26 |
| 9 | Prome ... | 379,235 | 130 | 12 | 6,234 | 5,472 | 11,766 | 980 | *10,805 | 3,169 | 5,909 | 10,210 | 287 |
| | Total ... | 2,010,481 | 154 | 43 | 50,600 | 27,897 | 78,497 | 1,826 | 51,770 | 13,279 | 27,937 | 45,769 | 3,149 |
| IRRAWADDY DIVISION. | | | | | | | | | | | | | |
| 10 | Ma-ubin ... | 501,893 | 186 | 4 | 2,704 | 2,914 | 5,618 | 1,404 | 5,317 | 1,005 | 3,234 | 5,219 | 8 |
| 11 | Pyapön ... | 256,859 | 121 | 6 | 1,570 | 1,554 | 3,124 | 521 | 2,642 | 481 | 1,837 | 2,527 | 10 |
| 12 | Bassein ... | 436,133 | 106 | 10 | 8,226 | 6,889 | 15,115 | 1,511 | 13,501 | 3,216 | 6,689 | 12,491 | 602 |
| 13 | Henzada ... | 533,765 | 185 | 15 | 8,351 | 8,456 | 16,807 | 1,126 | 15,507 | 3,477 | 9,349 | 14,352 | 804 |
| 14 | Myaungmya | 335,395 | 126 | 7 | 4,789 | 5,053 | 9,842 | 1,406 | *8,964 | 1,508 | 4,553 | 8,272 | 465 |
| | Total ... | 1,867,050 | 139 | 42 | 25,640 | 24,866 | 50,506 | 1,203 | 45,931 | 9,687 | 25,662 | 42,861 | 1,889 |
| TENASSERIM DIVISION. | | | | | | | | | | | | | |
| 15 | Amherst ... | 363,317 | 52 | 9 | 13,677 | 14,049 | 32,726 | 3,636 | 29,400 | 3,810 | 9,713 | 27,612 | 562 |
| 16 | Tavoy ... | 134,637 | 25 | 5 | 2,325 | 2,072 | 4,397 | 879 | *4,738 | 1,899 | 1,571 | 3,907 | 661 |
| 17 | Mergui ... | 111,590 | 11 | 4 | 2,333 | 2,588 | 5,421 | 1,355 | *5,314 | 722 | 1,808 | 4,750 | 15 |
| 18 | Toungoo ... | 360,852 | 53 | 9 | 4,345 | 3,369 | 7,714 | 857 | 6,506 | 1,972 | 2,675 | 6,166 | 191 |
| 19 | Thatön ... | 417,352 | 82 | 6 | 6,226 | 6,720 | 12,946 | 2,158 | 12,223 | 2,491 | 5,495 | 10,993 | ... |
| 20 | Salween ... | 46,720 | 18 | 1 | 626 | 320 | 946 | 946 | 494 | 4 | 83 | 441 | ... |
| | Total .. | 1,438,868 | 40 | 34 | 35,032 | 29,118 | 64,150 | 1,887 | 58,675 | 10,698 | 21,345 | 53,869 | 1,449 |
| MANDALAY DIVISION. | | | | | | | | | | | | | |
| 21 | Mandalay ... | 341,337 | 161 | 10 | 5,353 | 5,596 | 10,949 | 1,095 | *9,272 | 5,269 | 3,301 | 8,804 | 162 |
| 22 | Bhamo ... | 108,313 | 26 | 4 | 2,503 | 2,314 | 4,817 | 1,204 | 4,537 | 1,326 | 1,734 | 4,257 | 134 |
| 23 | Katha ... | 198,039 | 28 | 4 | 3,523 | 3,923 | 7,451 | 1,863 | 7,451 | 1,149 | 4,166 | 7,355 | ... |
| 24 | Ruby Mines | 100,596 | 18 | 4 | 1,396 | 1,311 | 2,707 | 677 | *2,731 | 272 | 951 | 1,789 | 889 |
| 25 | Myitkyina ... | 85,510 | 8 | 2 | 567 | 504 | 1,071 | 535 | 1,071 | 105 | 713 | 1,054 | ... |
| | Total ... | 833,795 | 28 | 24 | 13,347 | 13,618 | 26,965 | 1,125 | 25,062 | 8,121 | 10,865 | 23,259 | 1,185 |
| SAGAING DIVISION. | | | | | | | | | | | | | |
| 26 | Shwebo ... | 356,760 | 63 | 8 | 5,869 | 5,771 | 11,640 | 1,455 | 10,949 | 2,492 | 7,565 | 10,894 | 177 |
| 27 | Sagaing ... | 312,063 | 171 | 6 | 6,535 | 7,305 | 13,840 | 2,307 | 12,467 | 5,908 | 6,193 | 12,101 | 179 |
| 28 | Lower Chindwin | 315,959 | 91 | 6 | 5,220 | 5,979 | 11,799 | 1,966 | 11,322 | 6,297 | 4,029 | 11,155 | ... |
| 29 | Upper Chindwin | 170,534 | 9 | 6 | 2,457 | 2,504 | 4,961 | 827 | *5,232 | 485 | 3,078 | 4,495 | 269 |
| | Total ... | 1,155,321 | 39 | 26 | 20,681 | 21,559 | 42,240 | 1,625 | 39,970 | 15,182 | 20,865 | 33,045 | 625 |
| MAGWE DIVISION. | | | | | | | | | | | | | |
| 30 | Thayetmyo ... | 250,554 | 53 | 8 | 4,479 | 4,771 | 9,250 | 1,156 | *8,300 | 1,673 | 3,675 | 7,409 | 561 |
| 31 | Pakōkkut ... | 436,262 | 52 | 10 | 6,675 | 6,617 | 13,292 | 1,329 | 13,236 | 2,711 | 5,571 | 12,794 | 193 |
| 32 | Minbu ... | 264,445 | 80 | 7 | 4,543 | 4,467 | 9,015 | 1,288 | 8,902 | 2,078 | 5,197 | 8,541 | 99 |
| 33 | Magwe ... | 317,377 | 109 | 8 | 5,997 | 6,786 | 12,793 | 1,599 | *12,833 | 4,083 | 7,759 | 11,990 | 86 |
| | Total .. | 1,268,638 | 65 | 33 | 21,699 | 22,651 | 44,350 | 1,344 | 43,271 | 10,545 | 22,202 | 40,734 | 1,039 |
| MEIKTILA DIVISION. | | | | | | | | | | | | | |
| 34 | Meiktila ... | 273,794 | 125 | 6 | 3,904 | 3,967 | 7,871 | 1,312 | 7,843 | 1,139 | 5,991 | 7,475 | 199 |
| 35 | Yamethin ... | 307,407 | 72 | 7 | 5,219 | 4,793 | 10,012 | 1,430 | 9,773 | 3,343 | 5,717 | 9,103 | 875 |
| 36 | Kyaukse ... | 141,367 | 111 | 3 | 2,311 | 2,571 | 4,882 | 1,627 | *4,357 | 2,716 | 1,323 | 4,039 | 170 |
| 37 | Myingyan ... | 442,009 | 141 | 7 | 6,625 | 6,623 | 13,248 | 1,893 | 12,664 | 3,631 | 6,272 | 11,241 | 599 |
| | Total ... | 1,164,577 | 107 | 23 | 13,659 | 17,954 | 36,013 | 1,566 | 34,637 | 10,829 | 19,303 | 31,858 | 1,343 |
| SHAN STATES. | | | | | | | | | | | | | |
| 38 | Northern Shan States | 458,952 | 31 | 8 | 3,557 | 2,185 | 5,742 | 718 | 5,275 | 83 | 1,802 | 3,919 | 1,217 |
| 39 | Southern Shan States | 899,546 | 21 | 11 | 10,309 | 10,259 | 20,568 | 1,870 | *20,437 | 1,759 | 7,952 | 17,668 | 1,223 |
| | Total .. | 1,358,498 | 23 | 19 | 13,866 | 12,444 | 26,310 | 1,385 | 25,712 | 1,842 | 9,754 | 21,587 | 2,440 |
| CHIN HILLS. | | | | | | | | | | | | | |
| 40 | Chin Hills | 119,556 | 15 | 3 | 1,563 | 1,100 | 2,663 | 888 | 2,580 | 124 | 467 | 1,815 | 677 |
| | GRAND TOTAL FOR 1910-11 | 12,057,905 | 51 | 263 | 211,994 | 180,883 | 392,877 | 1,466 | *347,513 | 82,427 | 167,393 | 317,766 | 14,772 |
| | GRAND TOTAL FOR 1909-10 | 10,477,508 | 45 | 266 | 213,864 | 178,606 | 392,470 | 1,475 | *348,141 | 85,875 | 166,277 | 319,001 | 13,292 |
| | GRAND TOTAL FOR 1908-09 | 10,477,508 | 45 | 259 | 207,051 | 174,675 | 382,326 | 1,476 | 335,415 | 87,543 | 152,626 | 300,928 | 13,833 |

NOTE.— This statement does not include the figures for Dispensary
† Including the area and population
* Secondary operations

DEPARTMENT.

Province of Burma during the year 1910-11 (Paragraphs 5, 9, 10, 11, 13 and 15).

| RE-VACCINATION. | | | PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN. | | Persons successfully vaccinated per 1,000 of population. | PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES. | | AVERAGE ANNUAL NUMBER OF PERSONS SUCCESSFULLY VACCINATED DURING PREVIOUS FIVE YEARS. | | AVERAGE ANNUAL NUMBER OF DEATHS FROM SMALL-POX DURING PREVIOUS FIVE YEARS. | | No. |
|-----------------|-------------|----------|---|-----------------|--|---|-----------------|--|------------------|--|------------------|-----|
| Total. | Successful. | Unknown. | Primary. | Re-vaccination. | | Primary. | Re-vaccination. | No. | Ratio per 1,000. | No. | Ratio per 1,000. | |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 930 | 534 | 118 | 87.40 | 65.76 | 15.92 | 6.76 | 12.69 | 13,349 | 27.72 | 171 | .35 | 1 |
| 36 | 15 | 2 | 95.04 | 44.12 | 47.51 | .18 | 5.55 | 1,033 | 49.94 | ... | ... | 2 |
| 69 | 33 | 6 | 93.95 | 60.32 | 29.65 | 5.09 | 8.70 | 6,329 | 37.49 | 136 | .81 | 3 |
| 224 | 145 | 9 | 86.65 | 67.41 | 26.23 | .84 | 4.02 | 2,327 | 22.59 | 6 | .07 | 4 |
| 1,259 | 732 | 135 | 89.74 | 65.12 | 21.04 | 5.00 | 10.72 | 23,039 | 30.23 | 313 | .42 | |
| 21,062 | 8,829 | 11,123 | 99.93 | 63.25 | 46.38 | 36.10 | 46.24 | 15,805 | 62.68 | 394 | 1.56 | 5 |
| *1,260 | 684 | 102 | 95.69 | 59.07 | 16.96 | 1.70 | 8.10 | 4,436 | 9.49 | 505 | 1.08 | 6 |
| 473 | 353 | 13 | 93.69 | 77.39 | 20.31 | 1.45 | 2.75 | 9,068 | 26.70 | 194 | .57 | 7 |
| 165 | 86 | 20 | 94.60 | 59.31 | 37.05 | .15 | 12.12 | 11,575 | 29.26 | 252 | .61 | 8 |
| 964 | 502 | 146 | 97.07 | 61.37 | 25.24 | 2.66 | 15.15 | 12,133 | 33.17 | 105 | .29 | 9 |
| 26,924 | 10,457 | 11,407 | 96.19 | 67.39 | 28.46 | 6.08 | 42.37 | 53,017 | 29.12 | 1,450 | .80 | |
| 301 | 152 | ... | 98.30 | 50.50 | 17.62 | .15 | ... | 3,337 | 11.78 | 228 | .80 | 10 |
| 432 | 257 | 39 | 96.01 | 53.01 | 10.34 | .38 | 8.09 | 2,524 | 11.22 | 169 | .75 | 11 |
| 1,614 | 1,099 | 207 | 96.84 | 78.11 | 31.16 | 4.43 | 12.32 | 14,701 | 37.56 | 230 | .59 | 12 |
| 1,300 | 879 | 145 | 97.61 | 76.10 | 23.54 | 5.13 | 11.15 | 21,742 | 44.87 | 276 | .57 | 13 |
| 943 | 594 | 153 | 97.23 | 75.19 | 26.43 | 5.19 | 16.67 | 7,976 | 28.55 | 266 | .95 | 14 |
| 4,645 | 2,981 | 549 | 97.32 | 72.78 | 24.55 | 4.11 | 11.32 | 50,230 | 30.22 | 1,169 | .70 | |
| 3,326 | 1,745 | 465 | 95.75 | 55.20 | 79.71 | 1.91 | 4.96 | 20,397 | 67.95 | 116 | .39 | 15 |
| 388 | 97 | 214 | 95.83 | 55.75 | 23.74 | 13.95 | 55.15 | 6,676 | 60.70 | 4 | .04 | 16 |
| 119 | 100 | 1 | 89.64 | 84.75 | 43.46 | .23 | .84 | 5,711 | 61.35 | 8 | .09 | 17 |
| 1,208 | 533 | 138 | 97.64 | 50.09 | 18.60 | 2.94 | 11.42 | 6,400 | 23.13 | 102 | .39 | 18 |
| 723 | 523 | ... | 89.94 | 72.34 | 27.59 | ... | ... | 8,417 | 24.50 | 143 | .42 | 19 |
| 452 | 256 | ... | 89.27 | 53.64 | 11.92 | ... | ... | 852 | 22.53 | ... | ... | 20 |
| 6,216 | 3,257 | 518 | 94.10 | 57.16 | 39.70 | 2.44 | 8.33 | 43,513 | 41.84 | 373 | .34 | |
| 1,811 | 1,278 | 63 | 96.64 | 73.11 | 29.54 | 1.75 | 3.48 | 12,643 | 34.49 | 99 | .23 | 21 |
| 230 | 151 | 66 | 96.63 | 70.56 | 40.70 | 2.95 | 23.57 | 3,560 | 44.77 | ... | ... | 22 |
| ... | ... | ... | 93.71 | ... | 37.14 | ... | ... | 4,134 | 23.46 | ... | ... | 23 |
| 125 | 82 | 6 | 97.12 | 63.91 | 18.60 | 32.55 | 4.80 | 2,630 | 29.99 | ... | ... | 24 |
| ... | ... | ... | 93.41 | ... | 12.33 | ... | ... | 1,171 | 17.38 | ... | ... | 25 |
| 2,216 | 1,511 | 135 | 97.41 | 72.61 | 29.71 | 4.73 | 6.09 | 24,138 | 31.05 | ... | ... | |
| 691 | 537 | 52 | 95.56 | 81.04 | 30.36 | 1.62 | 7.53 | 10,033 | 34.99 | 23 | .10 | 26 |
| 1,373 | 1,083 | 100 | 93.43 | 85.07 | 42.25 | 1.44 | 7.28 | 17,587 | 62.22 | 31 | .11 | 27 |
| 477 | 334 | ... | 93.52 | 70.02 | 36.36 | ... | ... | 13,659 | 49.42 | 19 | .07 | 28 |
| ... | ... | ... | 90.57 | ... | 26.36 | 5.14 | ... | 7,554 | 48.88 | ... | ... | 29 |
| 2,541 | 1,954 | 152 | 96.70 | 81.79 | 34.63 | 1.56 | 5.98 | 43,838 | 43.81 | 78 | .09 | |
| *1,057 | 609 | 119 | 95.74 | 64.93 | 32.00 | 6.76 | 11.26 | 11,452 | 47.77 | 24 | .10 | 30 |
| 56 | 19 | ... | 98.85 | 33.93 | 29.37 | 2.21 | ... | 12,150 | 34.08 | 236 | .78 | 31 |
| 113 | 89 | ... | 97.02 | 78.76 | 32.63 | 1.11 | ... | 7,333 | 31.41 | 5 | .03 | 32 |
| 217 | 150 | 1 | 94.06 | 69.44 | 33.25 | .67 | .46 | 12,280 | 49.78 | 38 | .15 | 33 |
| 1,443 | 867 | 120 | 96.45 | 65.53 | 32.79 | 2.40 | 8.32 | 43,220 | 40.16 | 303 | .31 | |
| 28 | 14 | 9 | 97.79 | 73.63 | 27.35 | 2.54 | 32.14 | 7,886 | 31.26 | 34 | .14 | 34 |
| 239 | 201 | 90 | 96.86 | 91.73 | 30.27 | 3.84 | 8.37 | 9,214 | 37.89 | 59 | .24 | 35 |
| 541 | 404 | 39 | 96.47 | 80.43 | 31.43 | 3.90 | 7.21 | 4,416 | 31.26 | 1 | ... | 36 |
| 534 | 294 | 51 | 93.17 | 55.16 | 26.10 | 4.73 | 8.73 | 12,393 | 34.81 | 100 | .28 | 37 |
| 1,392 | 913 | 119 | 95.09 | 71.72 | 28.14 | 3.38 | 8.55 | 33,908 | 34.15 | 194 | .20 | |
| 467 | 113 | 314 | 96.57 | 73.86 | 8.79 | 23.07 | 67.24 | 3,157 | 9.83 | ... | ... | 38 |
| *194 | 168 | 7 | 91.96 | 89.84 | 19.83 | 5.93 | 3.61 | 11,620 | 14.23 | ... | ... | 39 |
| 661 | 281 | 321 | 92.76 | 94.41 | 16.10 | 9.49 | 48.56 | 14,777 | 12.99 | ... | ... | |
| 83 | 40 | 14 | 95.43 | 57.97 | 15.52 | 26.24 | 16.87 | 1,877 | 21.52 | ... | ... | 40 |
| *47,80 | 22,993 | 13,410 | 95.50 | 67.81 | 28.26 | 4.25 | 28.43 | 341,607 | 32.60 | ... | ... | |
| *47,303 | 23,166 | 9,636 | 95.27 | 61.53 | 32.06 | 3.82 | 20.48 | 335,424 | 32.01 | ... | ... | |
| 46,911 | 22,675 | 8,676 | 93.58 | 59.30 | 30.89 | 4.13 | 18.49 | 336,666 | 32.13 | ... | ... | |

Vaccination which are shown separately in Statement III. of the Pakokku Chin Hills, included.

A.—VACCINATION

STATEMENT NO. II.—*Showing the cost of the Department in the*

| No. | Districts. | EXPENDITURE. | | | | | | | | | | |
|-----|----------------------------------|-------------------------------------|-----------|-----------------------------------|-------------|--------------|--------------|---------|-----------|-------------|------------|-------------------------------------|
| | | European super- vising officers. | Pay. | Native super- vising officers. | Pay. | Vaccinators. | Pay. | Clerks. | Pay. | Peons, etc. | Pay. | Total pay of establish- ment. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| | ARAKAN DIVISION. | | Rs. A. P. | | Rs. A. P. | | Rs. A. P. | | Rs. A. P. | | Rs. A. P. | Rs. A. P. |
| 1 | Akyab ... | ... | ... | 2 | 780 0 0 | 10 | 2,759 2 10 | ... | ... | ... | ... | 3,539 2 10 |
| 2 | Hill Tracts, Northern Arakan ... | ... | ... | ... | ... | ... | 636 14 11 | ... | ... | ... | ... | 636 14 11 |
| 3 | Kyaukpyu ... | ... | ... | 1 | 660 8 8 | 6 | 1,763 10 8 | ... | ... | ... | ... | 2,424 3 4 |
| 4 | Sandoway ... | ... | ... | 1 | 400 0 0 | 3 | 856 0 0 | ... | ... | ... | ... | 1,256 0 0 |
| | Total | ... | ... | 4 | 1,840 8 8 | 21 | 6,065 12 5 | ... | ... | ... | ... | 7,906 5 1 |
| | PEGU DIVISION. | | | | | | | | | | | |
| 5 | Rangoon ... | ... | ... | ... | ... | 4 | 4,229 0 0 | ... | ... | 4 | 567 3 1 | 4,806 3 1 |
| 6 | Hanthawaddy ... | ... | ... | 3 | 1,800 0 0 | 9 | 2,964 9 2 | ... | ... | ... | ... | 4,764 9 2 |
| 7 | Pegu ... | ... | ... | 3 | 1,735 11 5 | 10 | 3,263 2 0 | ... | ... | ... | ... | 5,001 13 5 |
| 8 | Tharawaddy ... | ... | ... | 1 | 588 5 2 | 8 | 2,453 7 0 | ... | ... | ... | ... | 3,041 12 2 |
| 9 | Prome ... | ... | ... | 1 | 673 0 0 | 12 | 3,422 10 8 | ... | ... | ... | ... | 4,095 10 8 |
| | Total | ... | ... | 8 | 4,797 0 7 | 43 | 16,345 12 10 | ... | ... | 4 | 567 3 1 | 21,710 0 6 |
| | IRRAWADDY DIVISION. | | | | | | | | | | | |
| 10 | Ma-ubin ... | ... | ... | 1 | 600 0 0 | 4 | 1,006 0 0 | ... | ... | ... | ... | 1,606 0 0 |
| 11 | Pyapôn ... | ... | ... | 1 | 600 0 0 | 6 | 1,943 5 9 | ... | ... | ... | ... | 2,543 5 9 |
| 12 | Bassein ... | ... | ... | 2 | 810 0 0 | 10 | 2,318 8 0 | ... | ... | ... | ... | 3,658 8 0 |
| 13 | Henzada ... | ... | ... | 1 | 600 0 0 | 15 | 4,215 9 5 | ... | ... | ... | ... | 4,815 9 5 |
| 14 | Maungmya ... | ... | ... | 1 | 669 1 6 | 7 | 1,613 12 10 | ... | ... | ... | ... | 2,282 14 4 |
| | Total | ... | ... | 6 | 3,309 1 6 | 42 | 11,591 4 0 | ... | ... | ... | ... | 14,900 5 6 |
| | TENASSERIM DIVISION. | | | | | | | | | | | |
| 15 | Amherst ... | ... | ... | 2 | 1,198 0 0 | 9 | 2,659 15 11 | 1 | 190 0 0 | ... | ... | 4,047 15 11 |
| 16 | Tavoy ... | ... | ... | 1 | 600 0 0 | 5 | 1,345 11 11 | ... | ... | ... | ... | 1,945 11 11 |
| 17 | Mergui ... | ... | ... | 1 | 600 0 0 | 4 | 971 0 0 | ... | ... | ... | ... | 1,571 0 0 |
| 18 | Toungoo ... | ... | ... | 1 | 600 0 0 | 9 | 1,663 0 0 | ... | ... | ... | ... | 2,263 0 0 |
| 19 | Thaton ... | ... | ... | 1 | 595 0 0 | 6 | 2,172 1 1 | ... | ... | ... | ... | 2,767 1 1 |
| 20 | Salween ... | ... | ... | ... | ... | 1 | 401 0 0 | ... | ... | ... | ... | 401 0 0 |
| | Total | ... | ... | 6 | 3,593 0 0 | 31 | 9,187 12 11 | 1 | 190 0 0 | ... | ... | 12,900 12 11 |
| | MANDALAY DIVISION. | | | | | | | | | | | |
| 21 | Mandalay ... | ... | ... | 1 | 720 0 0 | 10 | 3,287 10 4 | ... | ... | ... | ... | 4,007 10 4 |
| 22 | Bhamo ... | ... | ... | ... | ... | 4 | 1,233 14 3 | ... | ... | ... | ... | 1,233 14 3 |
| 23 | Katha ... | ... | ... | 1 | 100 0 0 | 4 | 1,006 8 0 | ... | ... | ... | ... | 1,106 8 0 |
| 24 | Ruby Mines ... | ... | ... | 1 | 794 8 4 | 4 | 1,320 5 3 | ... | ... | ... | ... | 2,114 13 7 |
| 25 | Myitkyina ... | ... | ... | ... | ... | 2 | 810 0 7 | ... | ... | ... | ... | 810 0 7 |
| | Total | ... | ... | 3 | 1,614 8 4 | 24 | 7,653 6 5 | ... | ... | ... | ... | 9,272 14 9 |
| | SAGAING DIVISION. | | | | | | | | | | | |
| 26 | Shwebo ... | ... | ... | 1 | 670 15 5 | 8 | 2,074 0 0 | ... | ... | ... | ... | 2,744 15 5 |
| 27 | Sagaing ... | ... | ... | 1 | 550 0 0 | 6 | 2,050 15 4 | ... | ... | ... | ... | 2,600 15 4 |
| 28 | Lower Chindwin ... | ... | ... | 1 | 600 0 0 | 6 | 1,630 13 8 | ... | ... | ... | ... | 2,230 13 8 |
| 29 | Upper Chindwin ... | ... | ... | 1 | 702 8 0 | 6 | 2,013 9 3 | ... | ... | ... | ... | 2,715 1 3 |
| | Total | ... | ... | 4 | 2,523 7 5 | 26 | 7,799 6 3 | ... | ... | ... | ... | 10,322 13 8 |
| | MAGWE DIVISION. | | | | | | | | | | | |
| 30 | Thavetmyo ... | ... | ... | 1 | 600 0 0 | 8 | 2,274 2 1 | ... | ... | ... | ... | 2,874 2 1 |
| 31 | Pakkōku ... | ... | ... | 1 | 600 0 0 | 10 | 1,933 3 11 | ... | ... | 1 | 198 0 0 | 2,731 3 11 |
| 32 | Minbu ... | ... | ... | 1 | 300 0 0 | 7 | 2,030 8 0 | ... | ... | ... | ... | 2,330 8 0 |
| 33 | Magwe ... | ... | ... | 2 | 583 5 8 | 8 | 2,278 0 0 | ... | ... | ... | ... | 2,861 5 8 |
| | Total | ... | ... | 5 | 2,083 5 8 | 23 | 8,555 14 0 | ... | ... | 1 | 198 0 0 | 10,847 3 8 |
| | MEIKTILA DIVISION. | | | | | | | | | | | |
| 34 | Meiktila Vaccine Depôt ... | 1 | 6,121 6 9 | 1 | 1,247 9 8 | * | 1,053 14 6 | 2 | 1,200 0 0 | 8 | 1,366 13 7 | 10,994 12 6 |
| 35 | Meiktila ... | ... | ... | 1 | 1,450 0 0 | 6 | 1,601 5 4 | ... | ... | ... | ... | 3,051 5 4 |
| 36 | Yamethin ... | ... | ... | 2 | 720 0 0 | 7 | 1,913 6 4 | ... | ... | ... | ... | 2,633 6 4 |
| 37 | Kyauksè ... | ... | ... | 1 | 600 0 0 | 3 | 992 0 0 | ... | ... | ... | ... | 1,592 0 0 |
| 38 | Myingyan ... | ... | ... | 1 | 593 0 0 | 7 | 1,765 8 0 | ... | ... | ... | ... | 2,358 8 0 |
| | Total | 1 | 6,121 6 9 | 6 | 4,610 9 8 | 23 | 7,331 2 2 | 2 | 1,200 0 0 | 8 | 1,366 13 7 | 20,600 0 2 |
| | SHAN STATES. | | | | | | | | | | | |
| 39 | Northern Shan States ... | ... | ... | 2 | 1,000 0 0 | 8 | 2,051 0 0 | ... | ... | ... | ... | 3,251 0 0 |
| 40 | Southern Shan States ... | ... | ... | 5 | 3,999 8 4 | 11 | 4,964 8 9 | ... | ... | 9 | 1,950 0 0 | 10,014 1 1 |
| | Total | ... | ... | 7 | 4,999 8 4 | 19 | 7,015 8 9 | ... | ... | 9 | 1,950 0 0 | 13,265 1 1 |
| 41 | Chin Hills ... | ... | ... | ... | ... | 3 | 1,049 0 0 | ... | ... | ... | ... | 1,049 0 0 |
| | GRAND TOTAL FOR 1910-11 | 1 | 6,121 6 9 | 49 | 23,671 2 2 | 23 | 32,609 15 9 | 3 | 1,390 0 0 | 22 | 4,032 0 8 | 1,22,874 9 4 |
| | GRAND TOTAL FOR 1909-10 | 1 | 405 5 9 | 48 | 27,143 14 9 | 206 | 82,352 13 0 | 3 | 2,700 7 1 | 12 | 2,413 0 1 | 1,15,020 8 8 |
| | GRAND TOTAL FOR 1908-09 | 1 | 600 0 0 | 48 | 22,412 5 9 | 259 | 73,420 8 3 | 3 | 1,380 0 0 | 20 | 3,634 5 2 | 1,01,447 3 2 |

* Apprentice

† This amount represents allowances to

‡ This amount includes pay of Native Superintendents of Vaccination

DEPARTMENT.

Province of Burma during the year 1910-11 (Paragraphs 4, 6, 7 and 8).

| Travelling allowance. | Contingen- cies. | Total cost. | PAID FROM | | | | | Total. | Number of all success- ful vaccinations and re-vaccinations. | Average cost of each successful case. | No. |
|-----------------------|---------------------|---------------|--------------------|----------------------|-----------------|----------------------|-------------------|---------------|--|---|-----|
| | | | Imperial Funds. | Provincial Funds. | Local Funds. | Municipali- ties. | Native States. | | | | |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| Rs. A. P. | Rs. A. P. | Rs. A. P. | Rs. A. P. | Rs. A. P. | Rs. A. P. | Rs. A. P. | Rs. A. P. | Rs. A. P. | | Rs. A. P. | |
| 2,422 1 6 | 85 5 0 | 6,046 9 4 | ..... | ..... | 5,633 2 4 | 413 7 0 | ..... | 6,046 9 4 | 8,419 | 0 11 5 | 1 |
| 320 7 0 | ..... | 1,013 5 11 | ..... | 1,016 5 11 | ..... | ..... | ..... | 1,016 5 11 | 1,050 | 0 15 6 | 2 |
| 2,154 7 0 | ..... | 4,578 10 4 | ..... | ..... | 4,444 2 4 | 134 8 0 | ..... | 4,578 10 4 | 5,507 | 0 13 4 | 3 |
| 663 1 0 | ..... | 1,924 1 0 | ..... | ..... | 1,804 1 0 | 120 0 0 | ..... | 1,924 1 0 | 2,655 | 0 11 5 | 4 |
| 5,574 0 6 | 85 5 0 | 13,565 10 7 | ..... | 1,016 5 11 | 11,881 5 8 | 667 15 0 | ..... | 13,565 10 7 | 17,701 | 0 12 3 | |
| 207 12 6 | 4,172 11 9 | 9,186 11 4 | ..... | 1,330 9 0 | ..... | 7,856 2 4 | ..... | 9,186 11 4 | 13,395 | 0 11 0 | 5 |
| 3,109 10 0 | ..... | 7,874 3 2 | ..... | ..... | 7,874 3 2 | ..... | ..... | 7,874 3 2 | 8,135 | 0 15 6 | 6 |
| 2,863 2 9 | ..... | 7,865 0 2 | ..... | ..... | 7,190 6 6 | 674 9 8 | ..... | 7,865 0 2 | 8,911 | 0 14 1 | 7 |
| 2,085 3 0 | ..... | 5,126 15 2 | ..... | ..... | 5,126 15 2 | ..... | ..... | 5,126 15 2 | 16,073 | 0 5 1 | 8 |
| 1,927 7 0 | ..... | 6,023 1 8 | ..... | ..... | 5,060 15 2 | 962 2 6 | ..... | 6,023 1 8 | 10,712 | 0 9 0 | 9 |
| 10,193 3 3 | 4,172 11 9 | 36,075 15 6 | ..... | 1,330 9 0 | 25,252 8 0 | 9,492 14 6 | ..... | 36,075 15 6 | 57,226 | 0 10 1 | |
| 1,039 8 6 | ..... | 2,639 8 6 | ..... | ..... | 2,639 8 6 | ..... | ..... | 2,639 8 6 | 5,371 | 0 8 0 | 10 |
| 995 11 0 | ..... | 3,539 0 9 | ..... | ..... | 2,952 0 9 | 587 0 0 | ..... | 3,539 0 9 | 2,784 | 1 4 4 | 11 |
| 1,702 11 8 | 51 0 0 | 5,442 3 8 | ..... | 51 0 0 | 4,521 3 8 | 840 0 0 | ..... | 5,442 3 8 | 13,590 | 0 6 4 | 12 |
| 2,302 15 6 | ..... | 7,118 8 11 | ..... | ..... | 5,493 8 11 | 1,620 0 0 | ..... | 7,118 8 11 | 15,231 | 0 7 6 | 13 |
| 1,583 13 9 | ..... | 3,506 12 1 | ..... | 3 3 7 | 3,309 8 0 | 254 0 6 | ..... | 3,506 12 1 | 8,836 | 0 6 6 | 14 |
| 7,374 12 5 | 51 0 0 | 22,326 1 11 | ..... | 54 3 7 | 18,970 13 10 | 3,301 0 6 | ..... | 22,326 1 11 | 45,842 | 0 7 10 | |
| 2,157 15 0 | 27 8 0 | 6,253 6 11 | ..... | ..... | 5,041 12 11 | 1,191 10 0 | ..... | 6,253 6 11 | 29,357 | 0 3 5 | 15 |
| 1,480 2 6 | 83 15 0 | 3,479 13 6 | ..... | ..... | 3,140 5 2 | 330 8 3 | ..... | 3,479 13 6 | 4,004 | 0 13 11 | 16 |
| 1,187 4 0 | ..... | 2,758 4 0 | ..... | ..... | 2,482 0 0 | 276 4 0 | ..... | 2,758 4 0 | 4,850 | 0 9 1 | 17 |
| 1,412 9 9 | ..... | 3,680 9 9 | ..... | ..... | 3,140 9 9 | 540 0 0 | ..... | 3,680 9 9 | 6,702 | 0 8 9 | 18 |
| 2,458 14 3 | ..... | 5,225 15 4 | ..... | ..... | 4,965 15 4 | 160 0 0 | ..... | 5,225 15 4 | 11,516 | 0 7 3 | 19 |
| 218 5 0 | ..... | 619 5 0 | ..... | ..... | 619 5 0 | ..... | ..... | 619 5 0 | 697 | 0 14 3 | 20 |
| 8,915 2 6 | 111 7 0 | 21,997 6 5 | ..... | ..... | 19,399 0 2 | 2,598 6 3 | ..... | 21,997 6 5 | 57,126 | 0 6 2 | |
| 1,054 11 0 | 28 15 3 | 5,091 4 7 | ..... | 3,330 4 5 | ..... | 1,761 0 2 | ..... | 5,091 4 7 | 10,082 | 0 8 0 | 21 |
| 787 11 6 | 31 3 0 | 2,052 12 9 | ..... | 1,808 9 9 | ..... | 244 3 0 | ..... | 2,052 12 9 | 4,408 | 0 7 5 | 22 |
| 781 2 6 | ..... | 1,887 10 6 | ..... | 1,887 10 6 | ..... | ..... | ..... | 1,887 10 6 | 7,355 | 0 4 1 | 23 |
| 1,021 13 6 | ..... | 3,139 11 1 | ..... | 2,539 10 8 | ..... | 550 0 5 | ..... | 3,139 11 1 | 1,871 | 1 10 10 | 24 |
| 423 0 2 | ..... | 1,233 0 9 | ..... | 1,233 0 9 | ..... | ..... | ..... | 1,233 0 9 | 1,054 | 1 2 9 | 25 |
| 4,071 6 8 | 60 2 3 | 13,404 7 8 | ..... | 10,849 4 1 | ..... | 2,605 3 2 | 550 0 5 | 13,404 7 8 | 24,770 | 0 8 8 | |
| 1,724 12 7 | 14 3 6 | 4,433 15 6 | ..... | 4,163 10 6 | ..... | 320 5 0 | ..... | 4,433 15 6 | 10,831 | 0 6 7 | 26 |
| 1,324 8 0 | 17 14 0 | 3,943 5 4 | ..... | 3,713 0 3 | ..... | 180 5 1 | ..... | 3,943 5 4 | 13,184 | 0 4 9 | 27 |
| 811 7 9 | 10 11 6 | 3,083 3 11 | ..... | 2,714 13 11 | ..... | 368 6 0 | ..... | 3,083 3 11 | 11,439 | 0 4 4 | 28 |
| 807 5 10 | ..... | 3,523 7 1 | ..... | 3,523 7 1 | ..... | ..... | ..... | 3,523 7 1 | 4,495 | 0 12 7 | 29 |
| 4,663 2 2 | 43 0 0 | 15,633 15 10 | ..... | 14,161 15 9 | ..... | 869 0 1 | ..... | 15,633 15 10 | 39,599 | 0 6 0 | |
| 1,416 2 0 | 480 0 0 | 4,770 4 1 | ..... | 4 0 0 0 | 3,606 4 1 | 624 0 0 | ..... | 4,770 4 1 | 8,018 | 0 9 6 | 30 |
| 2,001 0 0 | ..... | 4,782 3 11 | ..... | 4,485 14 11 | ..... | 296 5 0 | ..... | 4,782 3 11 | 12,313 | 0 6 0 | 31 |
| 793 4 0 | ..... | 3,128 12 0 | ..... | 2,463 12 0 | ..... | 665 0 0 | ..... | 3,128 12 0 | 8,630 | 0 5 10 | 32 |
| 1,146 7 4 | ..... | 4,007 13 0 | ..... | 3,177 11 0 | 530 2 0 | 300 0 0 | ..... | 4,007 13 0 | 12,140 | 0 5 3 | 33 |
| 5,261 13 4 | 480 0 0 | 16,680 1 0 | ..... | 10,697 5 11 | 4,196 6 1 | 1,835 5 0 | ..... | 16,680 1 0 | 41,601 | 0 6 5 | |
| 491 14 0 | 6,323 13 7 | 17,810 8 1 | ..... | 17,810 8 1 | ..... | ..... | ..... | 17,810 8 1 | ..... | ..... | 34 |
| 1,116 7 9 | ..... | 4,247 13 1 | ..... | 4,007 13 1 | ..... | 240 0 0 | ..... | 4,247 13 1 | 7,489 | 0 9 1 | 35 |
| 1,533 4 6 | ..... | 4,106 10 10 | ..... | 3,451 10 10 | ..... | 715 0 0 | ..... | 4,106 10 10 | 9,304 | 0 7 2 | 36 |
| 717 10 6 | ..... | 2,309 10 6 | ..... | 2,309 10 6 | ..... | ..... | ..... | 2,309 10 6 | 4,443 | 0 8 4 | 37 |
| 1,083 2 0 | 99 0 6 | 3,495 10 6 | ..... | 2,973 6 6 | 240 0 0 | 277 4 0 | ..... | 3,495 10 6 | 11,535 | 0 4 10 | 38 |
| 4,977 6 9 | 6,422 14 1 | 32,030 5 0 | ..... | 30,553 1 0 | 240 0 0 | 1,232 4 0 | ..... | 32,030 5 0 | 32,771 | 0 15 8 | |
| 3,597 14 0 | 33 0 0 | 6,886 14 0 | ..... | 2,726 0 0 | ..... | ..... | 4,160 14 0 | 6,886 14 0 | 4,032 | 1 11 4 | 39 |
| 3,468 8 6 | ..... | 13,482 9 7 | ..... | 13,482 9 7 | ..... | ..... | ..... | 13,482 9 7 | 17,826 | 0 12 1 | 40 |
| 7,066 6 6 | 38 0 0 | 20,369 7 7 | ..... | 16,208 9 7 | ..... | ..... | 4,160 14 0 | 20,369 7 7 | 21,868 | 0 14 11 | |
| 737 4 0 | ..... | 1,786 4 0 | ..... | 1,786 4 0 | ..... | ..... | ..... | 1,786 4 0 | 1,855 | 0 15 5 | 41 |
| 18,983 10 1 | 11,464 8 1 | 1,93,273 11 6 | ..... | 86,575 10 10 | 79,940 1 9 | 22,052 0 6 | 4,710 14 5 | 1,93,273 11 6 | 340,759 | 0 9 1 | |
| 50,463 4 6 | 15,294 6 1 | 1,80,784 3 3 | ..... | 85,202 12 5 | 68,593 1 6 | 22,206 4 4 | 4,777 1 0 | 1,80,784 3 3 | 342,167 | 0 8 5 | |
| 39,704 12 7 | 8,695 3 7 | 1,49,847 3 4 | ..... | 63,580 4 11 | 60,639 12 0 | 21,439 2 10 | 4,127 15 7 | 1,49,847 3 4 | 323,603 | 0 7 5 | |

Vaccinators.

apprentice Vaccinators during their training.

of certain other districts for the period of their training at Meiktila.

B.—DISPENSARY

STATEMENT NO. III.—*Showing Dispensary Vaccination in the*

| No. | Districts. | Number of dispensaries in each district to which a vac- cinator is at- tached. | Average number of vaccinators attached to dispensaries during the year. | Total number of persons vaccinated. | Average number of persons vac- cinated by each vaccinator. | PRIMARY |
|----------------------|-------------------------------------|---|---|---|---|---------|
| | | | | | | Total. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| ARAKAN DIVISION. | | | | | | |
| 1 | Akyab ... .. | ..... | ..... | ..... | ..... | ..... |
| 2 | Hill Tracts, Northern Arakan ... .. | ..... | ..... | 16 | ..... | 16 |
| 3 | Kyaukpyu ... .. | ..... | ..... | 263 | ..... | 145 |
| 4 | Sandoway ... .. | ..... | ..... | 124 | ..... | 81 |
| | Total ... .. | ..... | ..... | 403 | ..... | 242 |
| PEGU DIVISION. | | | | | | |
| 5 | Rangoon ... .. | ..... | ..... | ..... | ..... | ..... |
| 6 | Hanthawaddy ... .. | ..... | ..... | 3,326 | ..... | 440 |
| 7 | Pegu ... .. | ..... | ..... | 312 | ..... | 302 |
| 8 | Tharrawaddy ... .. | ..... | ..... | 4,932 | ..... | 4,179 |
| 9 | Prome ... .. | ..... | ..... | ..... | ..... | ..... |
| | Total ... .. | ..... | ..... | 8,570 | ..... | 4,921 |
| IRRAWADDY DIVISION. | | | | | | |
| 10 | Ma-ubin ... .. | ..... | ..... | 1,316 | ..... | 201 |
| 11 | Pyapôn ... .. | ..... | ..... | ..... | ..... | ..... |
| 12 | Bassein ... .. | ..... | ..... | 121 | ..... | 4 |
| 13 | Henzada ... .. | ..... | ..... | 1,189 | ..... | 31 |
| 14 | Myaungmya ... .. | ..... | ..... | 1,722 | ..... | 772 |
| | Total ... .. | ..... | ..... | 4,348 | ..... | 953 |
| TENASSERIM DIVISION. | | | | | | |
| 15 | Amherst ... .. | ..... | ..... | 282 | ..... | 149 |
| 16 | Tavoy ... .. | ..... | ..... | ..... | ..... | ..... |
| 17 | Mergui ... .. | ..... | ..... | 5 | ..... | ..... |
| 18 | Toungoo ... .. | ..... | ..... | 654 | ..... | 121 |
| 19 | Thatôn ... .. | ..... | ..... | ..... | ..... | ..... |
| 20 | Salween ... .. | ..... | ..... | 105 | ..... | 74 |
| | Total ... .. | ..... | ..... | 1,046 | ..... | 344 |
| MANDALAY DIVISION. | | | | | | |
| 21 | Mandalay ... .. | ..... | ..... | 702 | ..... | 194 |
| 22 | Bhamo ... .. | ..... | ..... | 19 | ..... | 19 |
| 23 | Katha ... .. | ..... | ..... | 220 | ..... | 69 |
| 24 | Ruby Mines ... .. | ..... | ..... | 56 | ..... | 48 |
| 25 | Myitkyina ... .. | ..... | ..... | 282 | ..... | 282 |
| | Total ... .. | ..... | ..... | 1,279 | ..... | 612 |
| SAGAING DIVISION. | | | | | | |
| 26 | Shwebo ... .. | ..... | ..... | 40 | ..... | 34 |
| 27 | Sagaing ... .. | ..... | ..... | ..... | ..... | ..... |
| 28 | Lower Chindwin ... .. | ..... | ..... | 21 | ..... | 18 |
| 29 | Upper Chindwin ... .. | ..... | ..... | 196 | ..... | 181 |
| | Total ... .. | ..... | ..... | 257 | ..... | 233 |
| MAGWE DIVISION. | | | | | | |
| 30 | Thayetmyo ... .. | ..... | ..... | 864 | ..... | 59 |
| 31 | Pakôkku ... .. | ..... | ..... | 27 | ..... | 27 |
| 32 | Minbu ... .. | ..... | ..... | ..... | ..... | ..... |
| 33 | Magwe ... .. | ..... | ..... | 24 | ..... | 16 |
| | Total ... .. | ..... | ..... | 915 | ..... | 102 |
| MEIKTILA DIVISION. | | | | | | |
| 34 | Meiktila ... .. | ..... | ..... | 237 | ..... | 14 |
| 35 | Yamethin ... .. | ..... | ..... | 171 | ..... | 171 |
| 36 | Kyaukse ... .. | ..... | ..... | ..... | ..... | ..... |
| 37 | Myingyan ... .. | ..... | ..... | ..... | ..... | ..... |
| | Total ... .. | ..... | ..... | 408 | ..... | 185 |
| SHAN STATES. | | | | | | |
| 38 | Northern Shan States ... .. | ..... | ..... | 86 | ..... | 55 |
| 39 | Southern Shan States ... .. | ..... | ..... | 371 | ..... | 230 |
| | Total ... .. | ..... | ..... | 457 | ..... | 285 |
| 40 | Chin Hills ... .. | ..... | ..... | 450 | ..... | 386 |
| | GRAND TOTAL FOR 1910-11 ... .. | ..... | ..... | 18,133 | ..... | 8,263 |
| | GRAND TOTAL FOR 1909-10 ... .. | ..... | ..... | 12,261 | ..... | 5,475 |
| | GRAND TOTAL FOR 1908-09 ... .. | ..... | ..... | 14,037 | ..... | 7,562 |

NOTE.—No secondary operations are included in this statement a*

VACCINATION.

Province of Burma for the year 1910-11 (Paragraph 17).

| VACCINATION. | | | | RE-VACCINATION. | | | PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN. | | PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES. | | No. |
|-----------------|--------------------------|--------------------|----------|-----------------|-------------|----------|---|-----------------|---|-----------------|-----|
| Successful. | | | Unknown. | Total. | Successful. | Unknown. | Primary. | Re-vaccination. | Primary. | Re-vaccination. | |
| Under one year. | One and under six years. | Total of all ages. | | | | | | | | | |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4 | 7 | 15 | ... | ... | ... | ... | 93.75 | ... | ... | ... | 1 |
| ... | ... | 142 | ... | 118 | 96 | 3 | 97.93 | 83.48 | ... | 2.54 | 2 |
| 4 | 10 | 67 | ... | 43 | 40 | .. | 82.72 | 93.02 | ... | ... | 3 |
| 8 | 17 | 224 | ... | 161 | 136 | 3 | 92.56 | 86.08 | ... | 1.86 | 4 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 65 | 204 | 388 | 34 | 2,836 | 2,484 | 92 | 95.57 | 88.90 | 7.73 | 3.19 | 5 |
| 94 | 126 | 291 | 2 | 10 | 5 | 1 | 98.00 | 55.56 | .68 | 10.00 | 6 |
| 603 | 2,993 | 3,957 | 110 | 753 | 384 | ... | 97.25 | 61.00 | 2.63 | ... | 7 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 8 |
| 767 | 2,623 | 4,639 | 146 | 3,649 | 2,373 | 93 | 97.15 | 80.79 | 2.97 | 2.55 | 9 |
| 17 | 64 | 194 | 3 | 1,115 | 670 | 14 | 97.98 | 60.85 | 1.49 | 1.26 | 10 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 11 |
| ... | ... | 4 | ... | 117 | 52 | 30 | 100.00 | 59.77 | ... | 25.64 | 12 |
| ... | ... | 29 | ... | 1,153 | 129 | 45 | 93.55 | 47.53 | ... | 3.89 | 13 |
| 142 | 270 | 629 | 61 | 1,000 | 365 | 123 | 95.16 | 41.62 | 8.45 | 12.30 | 14 |
| 159 | 334 | 856 | 64 | 3,390 | 1,616 | 212 | 95.75 | 50.35 | 6.68 | 6.25 | ... |
| 13 | 74 | 113 | 30 | 133 | 26 | 33 | 94.96 | 26.00 | 20.13 | 24.81 | 15 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 16 |
| ... | ... | ... | ... | 5 | 1 | ... | ... | 20.00 | ... | ... | 17 |
| 8 | 9 | 84 | 17 | 533 | 172 | 157 | 80.77 | 45.74 | 14.05 | 29.46 | 18 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 19 |
| 4 | 11 | 60 | ... | 31 | 19 | ... | 81.03 | 61.29 | ... | ... | 20 |
| 25 | 94 | 257 | 47 | 702 | 213 | 190 | 86.53 | 42.53 | 13.66 | 27.07 | ... |
| 39 | 93 | 173 | 10 | 503 | 230 | 133 | 94.02 | 61.33 | 5.15 | 26.18 | 21 |
| 5 | 12 | 19 | ... | ... | ... | ... | 100.00 | ... | ... | ... | 22 |
| ... | ... | 52 | 5 | 151 | 82 | 20 | 81.25 | 62.60 | 7.25 | 13.25 | 23 |
| 5 | 23 | 47 | 1 | 8 | 8 | ... | 100.00 | 100.00 | 2.08 | ... | 24 |
| 26 | 32 | 212 | 66 | ... | ... | ... | 98.15 | ... | 23.40 | ... | 25 |
| 75 | 165 | 503 | 82 | 667 | 320 | 153 | 91.91 | 62.26 | 13.40 | 22.91 | ... |
| ... | 23 | 31 | 3 | 6 | 5 | 1 | 100.00 | 100.00 | 8.82 | 16.67 | 26 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 27 |
| 1 | 16 | 17 | ... | 3 | 3 | ... | 94.44 | 100.00 | ... | ... | 28 |
| 15 | 103 | 174 | ... | 15 | 12 | ... | 96.13 | 80.00 | ... | ... | 29 |
| 16 | 142 | 222 | 3 | 24 | 20 | 1 | 96.52 | 86.96 | 1.29 | 4.17 | ... |
| 4 | 9 | 42 | 17 | 805 | 493 | 229 | 100.00 | 85.59 | 28.81 | 23.45 | 30 |
| 27 | ... | 27 | ... | ... | ... | ... | 100.00 | ... | ... | ... | 31 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 32 |
| 4 | ... | 16 | ... | 8 | 6 | ... | 100.00 | 75.00 | ... | ... | 33 |
| 25 | 9 | 85 | 17 | 813 | 499 | 229 | 100.00 | 85.45 | 16.67 | 28.17 | ... |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 88 | 81 | 14 | ... | 223 | 99 | 60 | 100.00 | 60.74 | ... | 23.91 | 34 |
| ... | ... | 163 | 2 | ... | ... | ... | 100.00 | ... | 1.17 | ... | 35 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 36 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 37 |
| 88 | 81 | 183 | 2 | 223 | 99 | 60 | 100.00 | 60.74 | 1.08 | 26.91 | ... |
| 2 | 3 | 55 | ... | 31 | 24 | 2 | 100.00 | 82.76 | ... | 6.45 | 38 |
| 16 | 96 | 177 | 49 | 141 | 125 | 1 | 97.79 | 89.29 | 21.30 | .71 | 39 |
| 18 | 99 | 232 | 49 | 172 | 149 | 3 | 93.31 | 88.17 | 17.19 | 1.74 | ... |
| 5 | 15 | 103 | 228 | 64 | 23 | 3 | 65.19 | 45.90 | 59.07 | 4.69 | 40 |
| 1,196 | 3,585 | 7,304 | 638 | 9,865 | 5,953 | 947 | 95.73 | 66.81 | 7.72 | 9.60 | ... |
| 764 | 1,981 | 4,304 | 936 | 6,786 | 4,492 | 372 | 94.82 | 70.03 | 17.10 | 5.48 | ... |
| 774 | 2,052 | 5,287 | 1,552 | 6,525 | 3,934 | 402 | 94.24 | 64.25 | 25.81 | 6.16 | ... |

none were reported by Medical Officers.

COMPARATIVE STATEMENT NO. IV.—*Showing the number of persons primarily vaccinated
Burma in each of the under*

| Establishments. | | PERSONS PRIMARILY | | | | | | | | | |
|-----------------|-----|-------------------|--|------------------|--|------------------|--|------------------|--|------------------|--|
| | | Total number. | Number success- fully vac- cinated. | Total number. | Number success- fully vac- cinated. | Total number. | Number success- fully vac- cinated. | Total number. | Number success- fully vac- cinated. | Total number. | Number success- fully vac- cinated. |
| | | 1901-02. | | 1902-03. | | 1903-04. | | 1904-05. | | 1905-06. | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Government | ... | 91,530 | 83,082 | 120,384 | 101,166 | 135,394 | 109,016 | 133,435 | 109,201 | 162,014 | 144,074 |
| Municipal | ... | 52,227 | 46,695 | 55,352 | 47,049 | 53,775 | 44,879 | 59,410 | 46,168 | 64,883 | 52,398 |
| Local Funds | ... | 181,107 | 166,183 | 165,218 | 149,535 | 179,917 | 160,516 | 166,339 | 141,626 | 181,999 | 160,428 |
| Native States | ... | 1,822 | 1,553 | 7,053 | 5,451 | 6,712 | 5,024 | 6,983 | 4,939 | 8,197 | 6,933 |
| Dispensary | ... | 3,971 | 3,033 | 6,622 | 5,033 | 8,924 | 6,915 | 9,516 | 7,152 | 9,812 | 7,272 |
| ARMY. | | | | | | | | | | | |
| Europeans | ... | 20 | 9 | 25 | 11 | ... | ... | 25 | 14 | 66 | 33 |
| Natives | ... | 114 | 67 | 359 | 283 | 380 | 222 | 379 | 215 | 304 | 183 |
| Total | ... | 333,791 | 300,722 | 355,013 | 303,583 | 385,102 | 327,172 | 381,090 | 309,365 | 427,805 | 371,376 |

STATEMENT NO. V.—*Showing particulars of Vaccination verified*

| No. | Districts. | TOTAL NUMBER OF PERSONS VACCINATED. | | TOTAL NUMBER INSPECTED | | | |
|-------------------------|------------------------------|--|-----------------|---|-----------------|--|-----------------|
| | | | | By Deputy Sanitary Com- missioner or Civil Surgeons. | | By Native Superintendents or other Inspecting Officers. | |
| | | Primary. | Re-vaccination. | Primary. | Re-vaccination. | Primary. | Re-vaccination. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | Akyab | 9,702 | 910 | 88 | 612 | 4,934 | 113 |
| 2 | Hill Tracts, Northern Arakan | 1,107 | 16 | ..... | ..... | 16 | ..... |
| 3 | Kyaukpau | 6,273 | 187 | 253 | 137 | 3,484 | 80 |
| 4 | Sandoway | 3,049 | 267 | 638 | 22 | 1,114 | 23 |
| 5 | Rangoon | 7,131 | 24,022 | 75 | 232 | 4,904 | 13,401 |
| 6 | Hanthawaddy | 8,323 | 4,000 | 1,661 | 00 | 7,648 | 1,012 |
| 7 | Pegu | 9,280 | 483 | 1,834 | 134 | 6,255 | 261 |
| 8 | Tharrawaddy | 21,104 | 918 | 895 | 3 | 5,336 | 6 |
| 9 | Prome | 10,802 | 964 | 430 | 109 | 5,452 | 389 |
| 10 | Maubin | 5,513 | 1,416 | 833 | 771 | 4,848 | 1,330 |
| 11 | Pyapon | 2,642 | 482 | 705 | 57 | 1,690 | 252 |
| 12 | Bassein | 13,505 | 1,711 | 655 | 933 | 0,111 | 1,423 |
| 13 | Henzada | 15,538 | 2,458 | 1,779 | 1,045 | 4,949 | 101 |
| 14 | Myaungmya | 9,613 | 1,918 | 1,763 | 1,119 | 6,032 | 688 |
| 15 | Amherst | 29,549 | 3,459 | 1,165 | 61 | 16,228 | 1,595 |
| 16 | Tavoy | 4,019 | 388 | 1,301 | 89 | 2,972 | 71 |
| 17 | Mergui | 5,302 | 124 | 489 | 27 | 2,830 | 49 |
| 18 | Toungoo | 6,627 | 1,741 | 3 | ..... | 5,806 | 924 |
| 19 | Thaton | 12,223 | 723 | 3,996 | ..... | 6,914 | 337 |
| 20 | Salween | 538 | 483 | 110 | 51 | 5 | ..... |
| 21 | Mandalay | 9,332 | 2,319 | 873 | 405 | 5,235 | 1,032 |
| 22 | Bhamo | 4,556 | 280 | 841 | 37 | 64 | ..... |
| 23 | Katha | 7,620 | 151 | 967 | 103 | 1,027 | 108 |
| 24 | Ruby Mines | 2,630 | 133 | ..... | ..... | 2,216 | 75 |
| 25 | Myitkyina | 1,353 | ..... | 335 | ..... | 198 | ..... |
| 26 | Shwebo | 10,933 | 697 | 3,704 | 157 | 4,716 | 77 |
| 27 | Sagaing | 12,447 | 1,373 | 160 | ..... | 8,007 | 150 |
| 28 | Lower Chindwin | 11,340 | 480 | 3,563 | 68 | 7,861 | 249 |
| 29 | Upper Chindwin | 5,142 | 15 | 637 | ..... | 802 | 1 |
| 30 | Thayetmyo | 8,256 | 1,838 | 916 | 579 | 4,953 | 741 |
| 31 | Pakokku | 1322 | 56 | 409 | 15 | 4,303 | 2 |
| 32 | Minbu | 8,902 | 113 | 1,904 | ..... | 6,532 | 74 |
| 33 | Magwe | 12,592 | 225 | 891 | ..... | 4,415 | 65 |
| 34 | Meiktila | 7,857 | 251 | 180 | 157 | 5,117 | 3 |
| 35 | Yamethin | 9,944 | 239 | 2,118 | 184 | 6,553 | 26 |
| 36 | Kvaikse | 4,311 | 541 | 156 | ..... | 2,861 | 331 |
| 37 | Myingyan | 12,634 | 584 | 233 | 83 | 8,529 | 157 |
| 38 | Northern Shan States | 5,310 | 493 | 713 | ..... | 3,831 | 409 |
| 39 | Southern Shan States | 2,618 | 321 | 737 | 15 | 12,463 | 300 |
| 40 | Chin Hills | 2,966 | 117 | 36 | ..... | ..... | ..... |
| GRAND TOTAL FOR 1910-11 | | 833,929 | 57,051 | 37,836 | 7,330 | 187,801 | 25,945 |
| GRAND TOTAL FOR 1909-10 | | 851,498 | 53,233 | 36,616 | 9,254 | 179,114 | 26,196 |
| GRAND TOTAL FOR 1908-09 | | 842,977 | 53,436 | 33,589 | 11,311 | 140,072 | 21,543 |

and the number of those persons who were successfully vaccinated in the Province of mentioned official years (Paragraphs 16 and 19).

VACCINATED.

| Total number. | Number successfully vaccinated. | Total number. | Number successfully vaccinated. | Total number. | Number successfully vaccinated. | Total number. | Number successfully vaccinated. | Total number. | Number successfully vaccinated. | Establishment s. |
|------------------|---------------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|------------------|
| 1906-07. | | 1907-08. | | 1908-09. | | 1909-10. | | 1910-11. | | |
| 7 | | 8 | | 9 | | 10 | | 11 | | |
| 126,192 | 111,283 | 148,497 | 133,229 | 147,185 | 134,451 | 178,234 | 177,619 | 142,542 | 132,535 | Government. |
| 59,352 | 48,431 | 43,060 | 41,811 | 43,072 | 38,908 | 45,573 | 44,057 | 37,145 | 32,308 | Municipal. |
| 167,418 | 148,271 | 133,772 | 119,609 | 133,107 | 122,307 | 112,135 | 90,744 | 154,649 | 142,461 | Local Funds. |
| 6,833 | 5,739 | 5,203 | 4,330 | 6,991 | 5,262 | 10,081 | 6,681 | 13,177 | 10,462 | Native States. |
| 10,690 | 7,180 | 10,443 | 7,457 | 7,562 | 5,287 | 5,475 | 4,304 | 8,268 | 7,304 | Dispensary. |
| | | | | | | | | | | ARMY. |
| 24 | 14 | 59 | 36 | 37 | 35 | 68 | 56 | 102 | 62 | Europeans. |
| 281 | 143 | 403 | 279 | 455 | 396 | 306 | 269 | 190 | 153 | Native. |
| 370,704 | 321,061 | 351,442 | 306,751 | 343,439 | 306,646 | 351,572 | 323,630 | 353,073 | 325,285 | Total. |

by Inspecting Officers during the year 1910-11 (Paragraph 21).

| PERCENTAGE OF INSPECTIONS TO TOTAL NUMBER VACCINATED. | | | | PERCENTAGE OF CASES FOUND SUCCESSFUL OF TOTAL NUMBER INSPECTED. | | | | PERCENTAGE OF SUCCESS REPORTED BY VACCINATORS. | | No. |
|--|----------------------|---|----------------------|--|----------------------|---|----------------------|--|----------------------|-----|
| By Deputy Sanitary Commissioner or Civil Surgeons. | | By Native Superin- tendents or other Inspecting Officers. | | By Deputy Sanitary Commissioner or Civil Surgeons. | | By Native Superin- tendents or other Inspecting Officers. | | | | |
| Primary. | Re-vaccina- tion. | Primary. | Re-vaccina- tion. | Primary. | Re-vaccina- tion. | Primary. | Re-vaccina- tion. | Primary. | Re-vaccina- tion. | |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 91 | 65.81 | 51.37 | 15.33 | 95.45 | 66.34 | 91.67 | 69.23 | 87.41 | 65.76 | 1 |
| ... | ... | 1.45 | ... | ... | ... | 93.75 | ... | 95.04 | 44.12 | 2 |
| 4.03 | 53.25 | 55.50 | 42.73 | 96.81 | 74.45 | 91.86 | 73.75 | 93.95 | 61.32 | 3 |
| 19.94 | 8.24 | 37.19 | 5.61 | 85.53 | 90.91 | 29.81 | 95.65 | 86.65 | 67.44 | 4 |
| 1.05 | .90 | 69.01 | 55.69 | 97.33 | 46.55 | 99.78 | 60.82 | 99.33 | 68.10 | 5 |
| 15.15 | 1.50 | 91.39 | 25.30 | 97.70 | 53.33 | 94.86 | 63.04 | 95.69 | 59.07 | 6 |
| 20.30 | 27.74 | 67.40 | 54.04 | 97.35 | 85.82 | 9.91 | 76.03 | 96.69 | 77.39 | 7 |
| 4.24 | .83 | 25.28 | 6.5 | 97.09 | ... | 95.00 | 13.67 | 94.00 | 59.31 | 8 |
| 3.93 | 11.31 | 50.47 | 40.35 | 91.86 | 80.73 | 92.74 | 76.86 | 97.07 | 61.37 | 9 |
| 15.10 | 54.45 | 88.58 | 93.38 | 93.56 | 63.55 | 97.36 | 53.69 | 94.30 | 50.50 | 10 |
| 26.68 | 11.83 | 63.97 | 52.23 | 91.61 | 50.83 | 94.00 | 50.52 | 96.01 | 58.01 | 11 |
| 4.35 | 57.08 | 47.47 | 82.21 | 99.39 | 76.42 | 95.07 | 79.83 | 96.84 | 78.11 | 12 |
| 11.45 | 42.51 | 31.85 | 4.11 | 81.96 | 47.37 | 85.11 | 45.55 | 97.61 | 76.10 | 13 |
| 13.33 | 57.44 | 62.73 | 35.32 | 89.00 | 43.25 | 89.04 | 75.53 | 97.23 | 75.19 | 14 |
| 3.94 | 1.76 | 54.92 | 46.11 | 98.51 | 44.06 | 95.24 | 52.10 | 95.75 | 55.00 | 15 |
| 33.95 | 22.94 | 74.13 | 18.30 | 99.01 | 56.07 | 92.33 | 47.89 | 95.83 | 55.75 | 16 |
| 9.22 | 21.77 | 53.38 | 39.52 | 83.50 | 40.74 | 91.52 | 93.83 | 89.64 | 84.75 | 17 |
| .05 | ... | 87.61 | 53.07 | 100.00 | ... | 91.73 | 50.96 | 97.64 | 50.09 | 18 |
| 32.69 | ... | 56.57 | 46.61 | 93.02 | ... | 97.70 | 70.33 | 89.91 | 72.34 | 19 |
| 19.37 | 10.56 | .88 | ... | 83.36 | 62.75 | 80.00 | ... | 89.27 | 56.64 | 20 |
| 9.35 | 17.43 | 56.10 | 44.50 | 97.11 | 43.70 | 94.79 | 59.30 | 96.64 | 73.11 | 21 |
| 13.46 | 1.21 | 1.40 | ... | 97.38 | 100.00 | 93.44 | ... | 96.63 | 70.56 | 22 |
| 12.86 | 71.52 | 13.66 | 71.52 | 95.35 | 53.59 | 99.03 | 53.59 | 93.71 | ... | 23 |
| ... | ... | 85.02 | 56.39 | ... | ... | 93.25 | 64.00 | 97.12 | 68.91 | 24 |
| 24.76 | ... | 14.03 | ... | 98.01 | ... | 93.19 | ... | 98.41 | ... | 25 |
| 34.37 | 22.53 | 42.91 | 31.05 | 96.76 | 70.70 | 91.03 | 92.21 | 95.56 | 84.04 | 26 |
| 1.28 | ... | 61.23 | 10.92 | 95.63 | ... | 91.07 | 82.67 | 93.48 | 85.07 | 27 |
| 31.42 | 14.17 | 69.34 | 51.83 | 97.92 | 85.29 | 96.91 | 70.68 | 98.52 | 70.02 | 28 |
| 13.35 | ... | 13.76 | 6.67 | 92.58 | ... | 91.00 | 100.00 | 90.57 | ... | 29 |
| 11.09 | 31.16 | 60.05 | 39.83 | 93.14 | 85.63 | 91.45 | 78.42 | 95.71 | 64.93 | 30 |
| 3.08 | 26.79 | 32.43 | 3.57 | 99.02 | 33.33 | 98.53 | ... | 98.85 | 33.33 | 31 |
| 21.30 | ... | 73.38 | 65.49 | 96.43 | ... | 91.83 | 79.73 | 97.02 | 78.76 | 32 |
| 7.08 | ... | 25.06 | 2.89 | 85.03 | ... | 91.66 | 53.46 | 94.06 | 69.44 | 33 |
| 2.29 | 62.55 | 63.38 | 1.20 | 90.41 | 56.69 | 98.62 | 100.00 | 97.79 | 73.63 | 34 |
| 21.30 | 76.29 | 65.90 | 10.83 | 93.81 | 97.83 | 93.64 | 80.77 | 90.80 | 91.78 | 35 |
| 3.59 | ... | 65.91 | 66.73 | 93.36 | ... | 90.74 | 75.07 | 96.47 | 80.43 | 36 |
| 1.84 | 15.07 | 67.35 | 32.02 | 100.00 | 57.95 | 83.24 | 52.41 | 93.17 | 55.16 | 37 |
| 13.38 | ... | 71.93 | 82.13 | 95.51 | ... | 93.92 | 35.21 | 96.57 | 73.36 | 38 |
| 3.57 | 4.67 | 60.47 | 93.46 | 96.47 | 86.67 | 90.01 | 78.67 | 91.96 | 89.84 | 39 |
| 1.21 | ... | ... | ... | 83.80 | ... | ... | ... | 95.43 | 57.97 | 40 |
| 10.69 | 12.84 | 53.06 | 45.45 | 91.78 | 61.65 | 72.19 | 62.91 | 95.50 | 67.31 | |
| 10.42 | 17.33 | 50.96 | 49.21 | 93.64 | 62.90 | 94.06 | 60.93 | 95.40 | 61.53 | |
| 9.79 | 21.17 | 40.84 | 33.75 | 92.22 | 59.56 | 91.14 | 56.53 | 93.53 | 59.30 | |

APPENDIX A.

Statement showing the ratio per 10,000 successfully vaccinated and the mortality from small-pox by quinquennial periods for Lower Burma only (Paragraph 13).

| Official year. | | | | Ratio per 10,000 successfully vaccinated. | Quinquennial mean. | Calendar year. | | | | Ratio per 10,000 of mortality from small-pox. | Quinquennial mean. |
|----------------|-----|-----|-----|--|-----------------------|----------------|-----|-----|-----|--|-----------------------|
| 1 | | | | 2 | 3 | 4 | | | | 5 | 6 |
| 1895-96 | ... | ... | ... | 448.91 | 584.16 | 1895 | ... | ... | ... | 3.41 | 7.05 |
| 1896-97 | ... | ... | ... | 551.43 | | 1896 | ... | ... | ... | 3.70 | |
| 1897-98 | ... | ... | ... | 586.66 | | 1897 | ... | ... | ... | 4.32 | |
| 1898-99 | ... | ... | ... | 652.47 | | 1898 | ... | ... | ... | 10.70 | |
| 1899-1900 | ... | ... | ... | 678.31 | | 1899 | ... | ... | ... | 13.21 | |
| 1900-01 | ... | ... | ... | 530.41 | 372.41 | 1900 | ... | ... | ... | 6.76 | 3.62 |
| 1901-02 | ... | ... | ... | 352.69 | | 1901 | ... | ... | ... | 4.45 | |
| 1902-03 | ... | ... | ... | 328.04 | | 1902 | ... | ... | ... | 2.82 | |
| 1903-04 | ... | ... | ... | 353.66 | | 1903 | ... | ... | ... | 2.30 | |
| 1904-05 | ... | ... | ... | 324.89 | | 1904 | ... | ... | ... | 2.33 | |
| 1905-06 | ... | ... | ... | 385.48 | 329.99 | 1905 | ... | ... | ... | 10.10 | 5.98 |
| 1906-07 | ... | ... | ... | 359.61 | | 1906 | ... | ... | ... | 14.19 | |
| 1907-08 | ... | ... | ... | 300.06 | | 1907 | ... | ... | ... | 2.75 | |
| 1908-09 | ... | ... | ... | 297.50 | | 1908 | ... | ... | ... | 1.34 | |
| 1909-10 | ... | ... | ... | 307.19 | | 1909 | ... | ... | ... | 1.50 | |
| 1910-11 | ... | ... | ... | 290.12 | ... | 1910 | ... | ... | ... | 3.13 | |

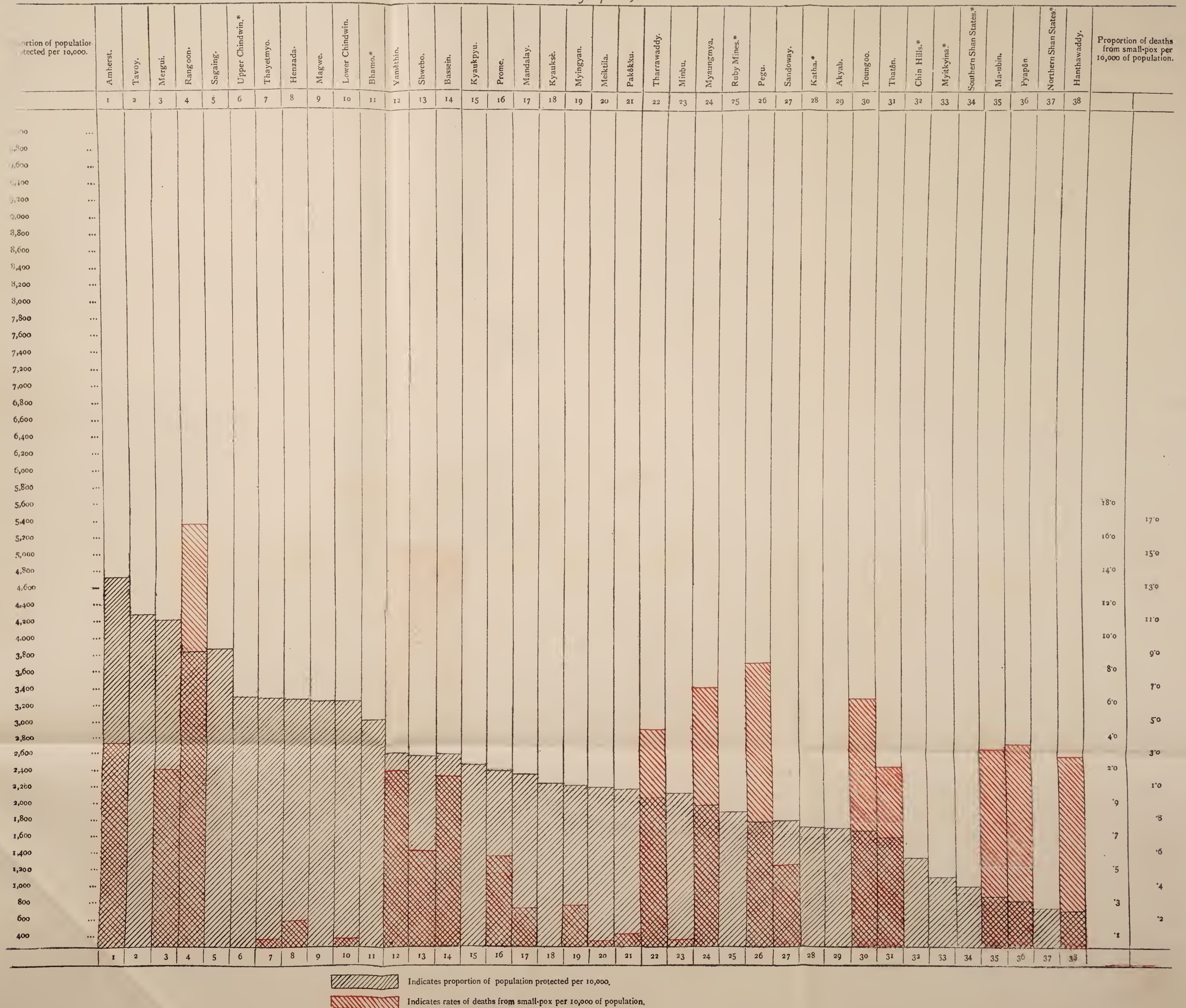
APPENDIX B.

Statement showing the number of vaccinations performed in municipal towns on children under one year of age (Paragraph 16).

| Towns. | | | | Number of births during the year 1910- 11. | Number of deaths among children under one year during the year 1910-11. | Number of successful vaccinations on children under one year during the year ending 31st March 1911. | Date of extension of Vaccination Act into towns. |
|----------------|-----|-----|-----|--|--|--|---|
| 1 | | | | 2 | 3 | 4 | 5 |
| Akyab | ... | ... | ... | 604 | 193 | 265 | August 1883. |
| Kyaukpnyu | ... | ... | ... | 63 | 13 | 16 | April 1894. |
| Sandoway | ... | ... | ... | 53 | 8 | 37 | September 1890. |
| Rangoon | ... | ... | ... | 5,317 | 1,598 | 3,735 | April 1884. |
| Pegu | ... | ... | ... | 469 | 150 | 187 | March 1893. |
| Nyaunglebin | ... | ... | ... | 145 | 65 | 33 | 29th March 1910. |
| Prome | ... | ... | ... | 851 | 112 | 162 | June 1890. |
| Paungde | ... | ... | ... | 426 | 73 | 108 | August 1890. |
| Gyobingauk | ... | ... | ... | 211 | 70 | 150 | February 1897. |
| Letpadan | ... | ... | ... | 249 | 83 | 117 | January 1897. |
| Thonzè | ... | ... | ... | 220 | 62 | 178 | October 1897. |
| Ma-ubin | ... | ... | ... | 180 | 46 | 137 | October 1891. |
| Yandoon | ... | ... | ... | 340 | 54 | 227 | January 1892. |
| Canubyu | ... | ... | ... | 207 | 46 | 141 | 9th July 1909. |
| Pyapon | ... | ... | ... | 167 | 23 | 79 | November 1904. |
| Kyaiklat | ... | ... | ... | 242 | 74 | 169 | 15th December 1904. |
| Bassein | ... | ... | ... | 918 | 391 | 761 | September 1888. |
| Ngathaingyaung | ... | ... | ... | 123 | 21 | 76 | February 1890. |
| Myaungmya | ... | ... | ... | 317 | 34 | 76 | June 1894. |
| Wakema | ... | ... | ... | 175 | 33 | 89 | 27th April 1907. |
| Henzada | ... | ... | ... | 689 | 159 | 426 | January 1889. |
| Zalun | ... | ... | ... | 168 | 31 | 126 | August 1894. |
| Myanaung | ... | ... | ... | 286 | 33 | 238 | July 1889. |
| Kyangin | ... | ... | ... | 290 | 66 | 157 | August 1894. |
| Moulmein | ... | ... | ... | 1,302 | 303 | 1,074 | August 1885. |
| Thaton | ... | ... | ... | 453 | 105 | 316 | October 1891. |
| Kyaikto | ... | ... | ... | 141 | 24 | 122 | March 1897. |
| Tavoy | ... | ... | ... | 775 | 100 | 755 | December 1889. |
| Mergui | ... | ... | ... | 413 | 85 | 412 | October 1891. |
| Toungoo | ... | ... | ... | 417 | 122 | 230 | May 1889. |
| Shwegyin | ... | ... | ... | 247 | 52 | 217 | January 1890. |
| Mandalay | ... | ... | ... | 5,773 | 2,442 | 2,960 | August 1891. |
| Sagaing | ... | ... | ... | 337 | 72 | 226 | April 1894. |
| Monywa | ... | ... | ... | 283 | 48 | 218 | March 1893. |
| Thayetmyo | ... | ... | ... | 417 | 168 | 251 | May 1889. |
| Allanmyo | ... | ... | ... | 414 | 137 | 215 | May 1901. |
| Yamethin | ... | ... | ... | 163 | 103 | 268 | February 1892. |
| Pyinmana | ... | ... | ... | 370 | 33 | 206 | November 1891. |
| Mingyan | ... | ... | ... | 412 | 148 | 390 | September 1891. |
| Shwebo | ... | ... | ... | 262 | 13 | 173 | June 1894. |
| Pakokku | ... | ... | ... | 621 | 252 | 460 | April 1892. |
| Kyaukse | ... | ... | ... | 237 | 70 | 178 | May 1894. |
| Minbu | ... | ... | ... | 219 | 46 | 198 | March 1896. |
| Salin | ... | ... | ... | 239 | 61 | 199 | March 1896. |
| Taungdwingyi | ... | ... | ... | 238 | 134 | 92 | February 1893. |
| Meiktila | ... | ... | ... | 241 | 109 | 142 | June 1906. |
| Bhamo | ... | ... | ... | 151 | 29 | 61 | 26th October 1894. |
| TOTAL | | | | 26,706 | 8,197 | 17,373 | |

APPENDIX C.

Diagram showing the proportion of Population protected during the seven official years from 1904-05 to 1910-11 and the death-rate from Small-pox during the calendar year 1910 in districts where Registration is in force (Paragraph 14).



TRIENNIAL REPORT
ON
VACCINATION IN BURMA

FOR THE YEARS 1908-09 TO 1910-11



RANGOON
OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA
1911